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1968

ANNUAL
1968

PRECIPITATION IN TENNESSEE RIVER BASIN

ANNUAL 1968

SUMMARY

(All Figures are in Inches)

AVERAGE PRECIPITATION

Above Chattanooga	(51.11)	42.26
Below Chattanooga	(52.10)	45.15
Entire Basin	(51.58)	43.60

MOST RAIN

Coweeta No. 31, N. C.	(92.01)	82.02
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LEAST RAIN

Wallace, Va.	(41.45)	29.70
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HIGHEST 24-HOUR RAIN

Kimbrough Cemetery, Ala.		11.13
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NATURAL STREAMFLOW

Above Knoxville	(19.44)	16.18
Above Chattanooga	(23.55)	17.86

Number in parentheses is long-term mean.

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PRECIPITATION IN TENNESSEE RIVER BASIN

ANNUAL 1968

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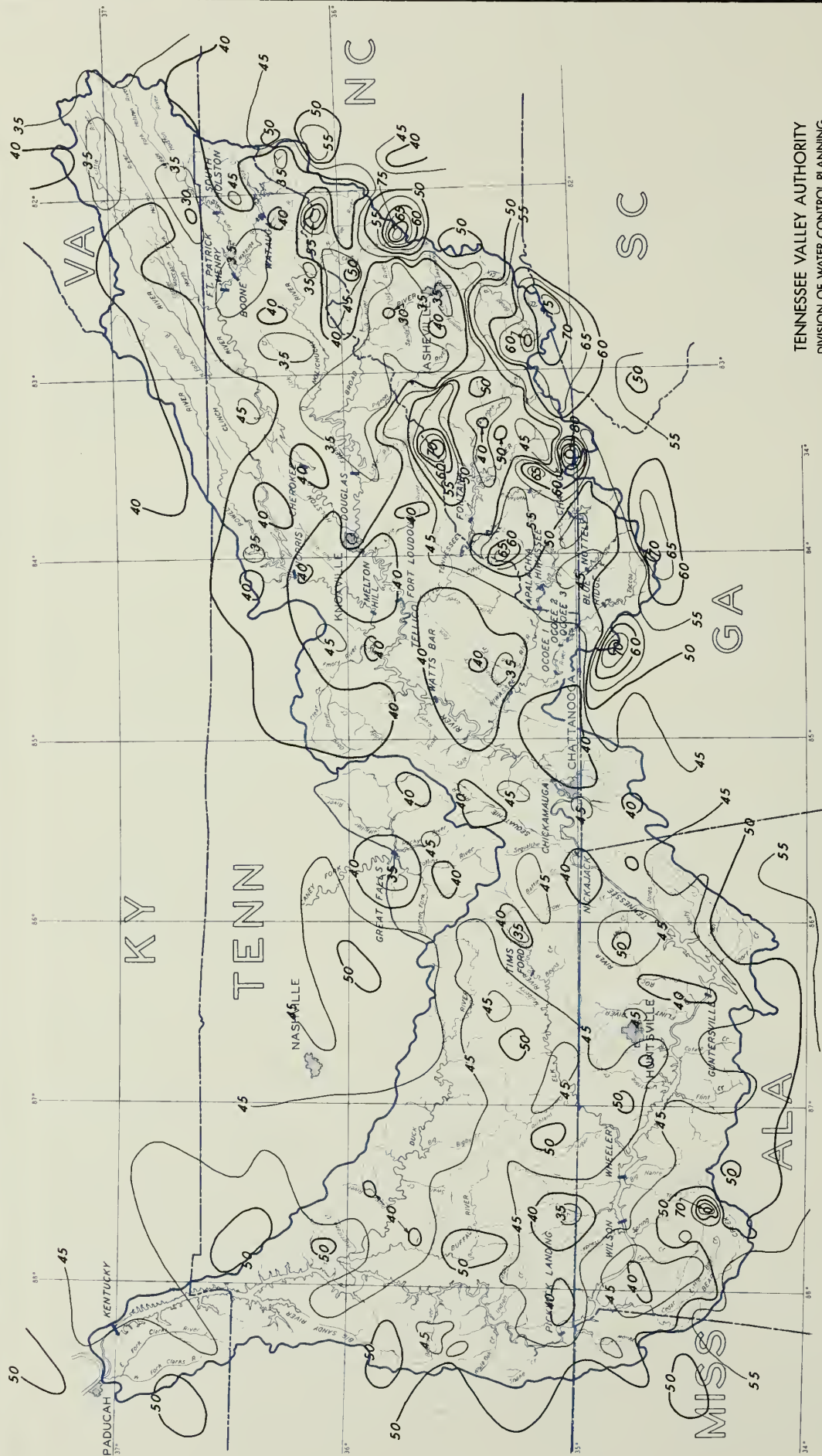
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ANNUAL 1968

PRECIPITATION
IN
TENNESSEE RIVER BASIN

REPORT NO. O-243





SYMBOLS:

Rainfall in inches

State Lines

Dams

TENNESSEE VALLEY AUTHORITY
DIVISION OF WATER CONTROL PLANNING

TENNESSEE RIVER BASIN

PRECIPITATION - YEAR 1968

SCALE 0 10 20 30 40 50 MILES

PRECIPITATION IN TENNESSEE RIVER BASIN

ANNUAL 1968

Precipitation

The year 1968 is the driest since 1943 and ranks as the seventh driest in 79 years of record. Precipitation over the Basin averaged 43.60 inches, 7.98 inches less than the 75 (1890-1964) mean. Average annual precipitation has ranged from 37.86 inches in 1941 to 64.62 inches in 1957. Average precipitation above and below Chattanooga was 8.85 inches and 6.95 inches, respectively, below the long-term mean. These amounts are listed in the summary on the cover of this report. The frontispiece map shows the 1968 annual distribution of precipitation over the Basin.

The index map following page 15 shows the station locations, and Tables 1 through 10 on pages 21 to 59 show precipitation data for stations listed in upstream order.

Monthly precipitation in the Basin was below the 75-year mean during eight months of the year with January, April, May, and October exceeding the mean. The driest month was February (1.08 inches) and the wettest was March (5.09 inches), with May following closely (5.00 inches). The table on page 6 shows monthly and annual precipitation data with means and deviations for the Basin.

The U. S. Forest Service station at Coweeta No. 31, North Carolina, located in the upper Little Tennessee River watershed in the mountainous southeastern section of the Basin, received the maximum annual precipitation during 1968, amounting to 82.02 inches, 9.99 inches below the 30-year (1935-1964) mean. This station was also the maximum Basin amount for March and December. The maximum monthly precipitation during the year was 14.86 inches in September at Kimbrough Cemetery, Alabama. Other high monthly totals were 12.48 inches in June and 12.83 inches in October at Mt. Mitchell, North Carolina.

The minimum monthly station precipitation was 0.11 inch in February at Daybook, North Carolina, located in the upper Nolichucky River watershed about 30 miles northeast of Asheville, North Carolina. Other monthly low totals were 0.25 inch in August at Cade Bird Farm, Tennessee, 0.26 inch in June at Weakley, Tennessee, and 0.30 inch in September at Bristol, Virginia. The lowest total 1968 precipitation in the Basin was 29.70 inches at Wallace, Virginia, located in the upper Holston River watershed about ten miles north of South Holston Dam. This amount is 11.75 inches below the 30-year (1935-1964) mean.

The ten highest and lowest amounts for 1968 in the Tennessee River Basin are listed in the following table:

1968 ANNUAL PRECIPITATION
AT 10 WETTEST AND 10 DRIEST STATIONS
IN THE TENNESSEE RIVER BASIN

<u>Highest Amounts</u>		<u>Lowest Amounts</u>	
<u>Station</u>	<u>1968 Annual Precipitation inches</u>	<u>Station</u>	<u>1968 Annual Precipitation inches</u>
Coweeta No. 31, N. C.	82.02	Wallace, near, Va.	29.70
Mt. Mitchell, N. C.	76.93	Marshall, N. C.	29.98
Newfound Gap, N. C.	74.86	Cedar Creek, Tenn.	30.45
Buck Forest, N. C.	74.60	Waynesville watershed No. 5, N.C.	30.54
Flat Top, Ga.	73.94	Double Springs, Tenn.	30.66
Sassafras Mountain, S. C.	73.55	Asheville, N. C.	30.86
Cedar Mountain, N. C.	72.10	Barnardsville, N. C.	31.06
Rosman No. 2, N. C.	71.04	Kingsport TEC, Tenn.	31.60
Kimbrough Cemetery, Ala.	70.98	Newport, Tenn.	31.62
Suches, Ga.	70.02	Enka, N. C.	31.94

Precipitation statistics for selected stations throughout the Basin are shown on pages 6 to 9.

The greatest station precipitation in a 24-hour period during the year was 11.13 inches on September 16 at Kimbrough Cemetery, Alabama, during a storm which caused some flooding over portions of upper Bear Creek and Town Creek watersheds.

Among the watershed subdivisions the maximum annual average for 1968 was 66.3 inches over the French Broad River watershed above Blantyre, North Carolina, 7.2 inches less than the 30-year mean of 73.5 inches. The minimum annual average was 36.0 inches, 8.7 inches less than the 30-year mean of 44.7 inches, over the South Fork of Holston River from South Holston Dam to Kingsport. The 1968 precipitation totals for the individual watershed subdivisions are shown on the map on page 11 and for selected watersheds in the table on page 10.

Precipitation for the year on 14 selected watersheds is shown on page 14. Other tabulations and charts on pages 12 and 13 show selected data on precipitation and runoff.

Snow

The average snowfall over the Basin during the year was 18.4 inches, with 35 percent occurring in January, 22 percent in February, 24 percent in March, and 14 and 5 percent in November and December, respectively. The maximum for the Basin, 71.9 inches, occurred at McKinney Gap, North Carolina, in the Nolichucky River watershed. Zionville, North Carolina, on the Basin divide of the Holston River watershed had 61.5 inches. In the western section of the Basin the maximum snowfall

was 30.5 inches at Dover Fire Tower, Tennessee, located on the Tennessee River about 48 miles southeast of Kentucky Dam. In the Caney Fork area above Great Falls Dam the average snowfall for the year was 13.0 inches, with a maximum of 24.0 inches at Monterey, Tennessee.

Streamflow

Streamflow in the Basin above Chattanooga was below normal for eleven months in 1968, with January being above the mean.

Flows from the watersheds above Chattanooga and Knoxville are shown on the cover and in the following table:

ANNUAL NATURAL STREAMFLOW IN INCHES-1968

	<u>Water Year</u>		<u>Calendar Year</u>	
	<u>1968</u>	<u>Mean</u>	<u>1968</u>	<u>Mean</u>
Tennessee River at				
Knoxville	18.83	19.46	16.18	19.44
Chattanooga	22.33	23.56	17.86	23.55

Other tabulations and charts on pages 12, 13, and 14 show selected runoff data.

Evaporation

Data observed at the five TVA evaporation stations are shown in the table on page 15.

Drought

Drought conditions occurred in parts of the Basin in June, July, August, and September.

Temperatures

Air temperatures averaged much below normal during February. In North Carolina, the average for the month was the lowest of record at some stations, and in Tennessee this month was the seventh lowest average temperature. August temperatures averaged above normal, but some record lows were reported at Knoxville and Asheville near the close of the month. Some low-temperature records were set throughout the Basin on October 5.

Intense Rainfall

Maximum rainfall intensities for 1, 3, 6, 12, and 24-hour periods for the years 1936 through 1968 are shown in a table on page 5.

Monthly Reports

Monthly issues of the bulletin "Precipitation in Tennessee River Basin" contain tabulations of daily precipitation at stations located in or near the Basin together with isohyetal maps of monthly precipitation, maps showing mean monthly precipitation on watershed subdivisions, descriptions of storms, tabulations of rainfall and runoff on selected watersheds, intense rainfall data, and other information.

Special Reports

Reports on special storm investigations were published in monthly issues of this publication during 1968. These reports and the date of the issue in which they appear are as follows:

	<u>Monthly Bulletin Containing Report</u>
Storm and Flood of August 4, 1968, at Johnson City, Tennessee	August 1968
Storm of September 16, 1968, over Portions of Upper Bear Creek and Town Creek watersheds in Alabama	September 1968
Storm of November 27-28, over Beech River watershed in Tennessee	November 1968

ANNUAL MAXIMUM RAINFALL INTENSITIES

IN

TENNESSEE RIVER BASIN

1936-1968

Each tabular value shows maximum rainfall in inches occurring within the time period shown at head of the column. The number in parentheses is the station where this occurred.

Year	Inches for				
	1 Hour	3 Hours	6 Hours	12 Hours	24 Hours
1936	3.00 (34)	4.79 (60)	5.62 (60)	6.90 (60)	8.85 (60)
1937	2.64 (90)	3.70 (29)	4.40 (70)	6.16 (283)	7.68 (283)
1938	2.61 (179)	3.77 (101)	6.78 (179)	7.91 (179)	9.10 (179)
1939	3.52 (207)	6.81 (24)	6.81 (24)	6.81 (24)	8.57 (397)
1940	3.08 (142)	4.00 (190)	6.12 (190)	9.02 (190)	11.60 (115)
1941	3.65 (391)	3.87 (470)	3.98 (42)	4.00 (50)	5.23 (563)
1942	2.95 (520B)	4.80 (419)	4.80 (419)	5.79 (283)	9.53 (285)
1943	3.19 (275)	4.36 (275)	4.75 (58)	4.88 (275)	6.70 (566)
1944	4.88 (505)	8.06 (505)	8.16 (505)	8.21 (505)	8.36 (505)
1945	2.45 (503)	4.03 (605)	4.43 (521)	6.24 (154)	7.65 (154)
1946	2.89 (651)	3.92 (403)	5.30 (403)	6.53 (505)	7.57 (384)
1947	2.41 (101)	5.82 (538)	5.82 (538)	5.82 (538)	5.82 (538)
1948	2.70 (283)	4.00 (15)	4.41 (446)	5.73 (191)	7.30 (509)
1949	3.55 (679)	4.57 (488)	5.72 (254)	7.67 (254)	9.94 (233A)
1950	2.60 (327)	3.53 (69)	4.63 (233A)	6.23 (233A)	9.20 (233A)
1951	4.00 (210)	4.80 (407)	4.80 (407)	6.25 (109)	7.34 (111)
1952	3.83 (575)	4.85 (575)	5.70 (575)	6.76 (575)	7.54 (115)
1953	3.10 (691)	4.65 (153)	4.65 (153)	4.93 (233A)	6.90 (200C)
1954	3.58 (154)	4.29 (438)	5.52 (438)	8.87 (393)	8.87 (393)
1955	3.18 (704A)	3.72 (255)	4.61 (154)	6.25 (233A)	8.56 (462A)
1956	3.00 (381)	4.73 (682)	4.73 (682)	4.73 (682)	7.53 (17A)
1957	3.51 (385)	3.75 (738)	4.70 (268)	5.05 (190)	7.60 (190)
1958	3.00 (135)	3.97 (522)	5.49 (135)	5.49 (135)	6.51 (109)
1959	3.50 (506)	6.34 (506)	6.34 (506)	6.34 (506)	8.7 (742)
1960	3.43 (711)	7.34 (711)	7.45 (711)	7.45 (711)	7.45 (711)
1961	2.58 (624)	3.50 (249)	3.66 (575)	5.63 (286)	10.19 (279A)
1962	3.52 (75)	4.54 (276B)	4.54 (276B)	5.30 (277)	7.43 (191)
1963	3.45 (762C)	6.95 (382A)	6.95 (382A)	7.27 (581)	7.57 (762A)
1964	2.44 (788)	3.50 (462)	4.55 (201A)	6.10 (280)	13.10 (286)
1965	3.10 (228)	5.65 (169)	5.65 (169)	5.65 (169)	11.52 (190)
1966	3.80 (662)	5.05 (662)	5.75 (662)	5.78 (662)	8.47 (283)
1967	3.33 (816)	4.65 (111)	6.40 (115)	6.40 (115)	12.14 (135)
1968	5.50 (F1)	8.80 (F1)	11.13 (F1)	11.13 (F1)	11.13 (F1)

TENNESSEE RIVER BASIN PRECIPITATION DURING 1968

Precipitation in Inches

<u>Month</u>	<u>Above Chattanooga 1968</u>	<u>Below Chattanooga 1968</u>	<u>1968</u>	<u>Tennessee River Basin</u>		
				<u>75-Yr Mean</u>	<u>Deviation from Monthly Mean</u>	<u>Cumulative</u>
January	4.65	5.28	4.94	4.88	+0.06	+0.06
February	0.85	1.34	1.08	4.84	-3.76	-3.70
March	4.64	5.60	5.09	5.61	-0.52	-4.22
April	4.86	4.94	4.90	4.48	+0.42	-3.80
May	4.28	5.82	5.00	4.08	+0.92	-2.88
June	3.51	1.64	2.64	4.24	-1.60	-4.48
July	4.04	3.40	3.74	4.91	-1.17	-5.65
August	2.77	2.00	2.41	4.17	-1.76	-7.41
September	2.74	3.63	3.15	3.20	-0.05	-7.46
October	3.31	2.75	3.05	2.84	+0.21	-7.25
November	2.84	4.29	3.51	3.57	-0.06	-7.31
December	3.77	4.46	4.09	4.76	-0.67	-7.98
Total	42.26	45.15	43.60	51.58		

Mean precipitation figures are for the period 1890-1964.

PRECIPITATION STATISTICS FOR SELECTED STATIONS

Precipitation in Inches

<u>Month</u>	<u>Long- Term</u>	<u>Maximum of Record</u>		<u>Minimum of Record</u>		<u>Year</u> 1968
	<u>Mean</u>	<u>Amount</u>	<u>Year</u>	<u>Amount</u>	<u>Year</u>	
<u>ELIZABETHTON, TENNESSEE (77 Years)</u>						
January	3.43	8.13	1947	0.46	1896	3.72
February	3.39	7.59	1944	0.46	1968	0.46
March	4.19	10.72	1899	1.37	1937	4.00
April	3.40	6.05	1912	0.65	1942	4.63
May	3.99	7.73	1915	1.08	1941	2.59
June	4.59	16.38	1872	1.33	1946	2.59
July	5.15	10.56	1896	1.10	1872	3.65
August	4.33	12.14	1901	0.89	1896	3.38
September	2.88	7.61	1928	0.30	1903	0.80
October	2.56	7.61	1918	0.02	1904	3.75
November	2.42	5.02	1948	0.61	1931	1.25
December	3.30	9.87	1872	0.30	1965	2.06
Annual	43.63	58.91	1928	29.06	1941	32.88

PRECIPITATION STATISTICS FOR SELECTED STATIONS (Continued)

Precipitation in Inches

<u>Month</u>	<u>Long-Term Mean</u>	<u>Maximum of Record Amount</u>	<u>Year</u>	<u>Minimum of Record Amount</u>	<u>Year</u>	<u>Year 1968</u>
<u>MURPHY, NORTH CAROLINA (94 Years)</u>						
January	5.55	14.85	1882	1.75	1907	5.52
February	5.68	15.10	1873	0.56	1906	1.23
March	6.26	15.34	1917	1.62	1967	4.69
April	4.84	15.40	1874	0.30	1915	4.82
May	4.03	11.25	1929	0.46	1941	5.54
June	4.89	9.31	1884	0.94	1964	2.41
July	5.66	13.42	1950	0.89	1957	3.98
August	4.96	13.96	1920	0.95	1953	4.01
September	3.32	8.04	1962	0.20	1876	2.58
October	3.06	9.27	1949	0.00	1963	2.75
November	3.83	13.18	1948	0.51	1924	3.26
December	5.19	12.98	1932	0.48	1965	4.73
Annual	57.27	84.80	1875	40.00	1940	45.52

CHATTANOOGA, TENNESSEE (90 Years)

January	5.22	14.74	1882	1.13	1961	4.98
February	5.03	12.30	1939	0.62	1941	0.94
March	5.88	14.05	1899	0.93	1910	3.70
April	4.67	15.29	1911	0.44	1942	3.72
May	3.85	12.00	1929	0.54	1941	3.93
June	3.99	9.40	1949	0.29	1931	0.87
July	4.66	13.49	1916	0.20	1957	1.92
August	3.74	12.36	1920	0.45	1929	2.90
September	3.14	12.19	1957	0.04	1919	2.82
October	2.97	11.91	1925	0.08	1938	2.52
November	3.64	13.59	1948	0.16	1890	2.81
December	5.06	13.68	1961	0.44	1889	3.98
Annual	51.85	72.37	1929	32.68	1904	35.09

LEWISBURG, TENNESSEE (75 Years)

January	5.16	17.05	1950	1.26	1943	5.09
February	5.09	13.14	1939	1.08	1941	1.23
March	5.90	12.50	1902	0.94	1910	6.20
April	4.57	12.60	1912	0.56	1915	4.83
May	4.18	12.01	1967	0.60	1941	7.90
June	3.98	13.46	1900	0.72	1899	0.78
July	4.50	9.85	1941	0.84	1954	3.44
August	3.98	11.40	1923	0.57	1909	3.86
September	3.16	12.41	1957	0.32	1927	4.35
October	2.88	8.88	1919	T	1963	3.67
November	3.78	10.27	1948	0.46	1953	2.56
December	4.79	11.71	1922	0.77	1958	4.02
Annual	51.97	66.62	1950	37.42	1904	47.93

PRECIPITATION STATISTICS FOR SELECTED STATIONS (Continued)

Precipitation in Inches

<u>Month</u>	<u>Long-Term Mean</u>	<u>Maximum of Record Amount</u>	<u>Year</u>	<u>Minimum of Record Amount</u>	<u>Year</u>	<u>Year 1968</u>
<u>MUSCLE SHOALS, ALABAMA* (85 Years)</u>						
January	5.08	13.09	1950	1.20	1961	5.83
February	5.02	13.64	1948	0.54	1941	1.08
March	5.78	16.15	1897	1.26	1910	5.86
April	4.56	16.07	1892	0.74	1930	3.53
May	3.97	11.29	1939	0.16	1941	8.00
June	3.98	13.87	1900	0.60	1897	1.52
July	4.45	14.60	1916	0.77	1935	3.06
August	3.72	10.60	1894	0.35	1948	3.15
September	2.98	7.87	1890	0.00	1897	5.04
October	2.57	11.05	1918	0.00+	1963	1.49
November	3.49	11.39	1948	0.16	1949	3.11
December	4.90	14.59	1926	0.83	1958	5.12
Annual	50.50	76.21	1932	30.92	1943	46.79

*Before December 1940 this station was at Florence, Alabama.

+Also minimum for 1924.

JOHNSONVILLE STEAM PLANT, TENNESSEE* (85 Years)

January	5.32	23.51	1937	0.44	1963	3.69
February	4.30	9.56	1939	0.73	1968	0.73
March	5.27	13.07	1927	0.59	1910	6.45
April	4.59	12.29	1892	0.53	1887	5.83
May	4.31	10.19	1909	0.48	1951	4.46
June	3.96	13.34	1928	0.37	1930	2.47
July	4.07	10.12	1892	0.06	1890	1.63
August	3.71	13.70	1914	0.34	1948	0.73
September	3.39	11.31	1921	0.00	1897	3.16
October	2.75	11.44	1919	0.00	1963	4.15
November	4.09	11.90	1906	0.74	1949	6.77
December	4.54	14.66	1926	0.05	1889	3.36
Annual	50.30	76.17	1950	32.48	1960	43.43

*Before August 1949 records collected at Johnsonville have been used.

PRECIPITATION STATISTICS FOR SELECTED STATIONS (Continued)

Precipitation in Inches

<u>Month</u>	<u>Long-Term Mean</u>	<u>Maximum of Record Amount</u>	<u>Year</u>	<u>Minimum of Record Amount</u>	<u>Year</u>	<u>Year 1968</u>
<u>HENDERSONVILLE, NORTH CAROLINA (72 Years)</u>						
January	4.61	12.40	1906	0.39	1907	3.57
February	4.66	10.73	1891	0.54	1930	0.64
March	5.40	11.67*	1952	0.96	1930	5.44
April	4.37	9.38	1920	0.43	1915	2.63
May	4.39	12.70	1942	0.95	1914	5.45
June	5.19	11.56	1934	0.96	1911	6.76
July	6.05	22.09	1916	1.72	1957	3.80
August	6.05	26.58	1901	0.49	1925	1.76
September	4.43	14.00	1906	0.22	1919	3.21
October	4.17	14.59	1918	0.01	1904	6.09
November	3.38	12.54	1948	0.21	1910	3.76
December	5.00	12.85	1918	0.23	1965	3.61
Annual	57.70	92.60	1901	32.55	1925	46.72

*Also maximum for March 1891.

KNOXVILLE, TENNESSEE (98 Years)

January	4.64	16.98	1882	1.29	1907	4.37
February	4.69	12.52	1873	0.56	1898	0.84
March	5.15	13.35	1917	0.72	1910	4.06
April	4.22	17.32	1874	0.70	1942	5.04
May	3.76	8.81	1938	0.71	1941	4.13
June	4.09	11.83	1928	1.39	1936	4.73
July	4.61	13.16	1917	0.69	1901	6.04
August	3.82	11.33	1920	1.10	1953	1.11
September	2.83	10.78	1944	0.18	1961	1.78
October	2.56	9.51	1925	0.00	1963	1.76
November	3.40	11.69	1948	0.17	1890	1.79
December	4.31	12.34	1901	0.47	1965	3.04
Annual	48.08	73.87	1875	33.67	1930	38.69

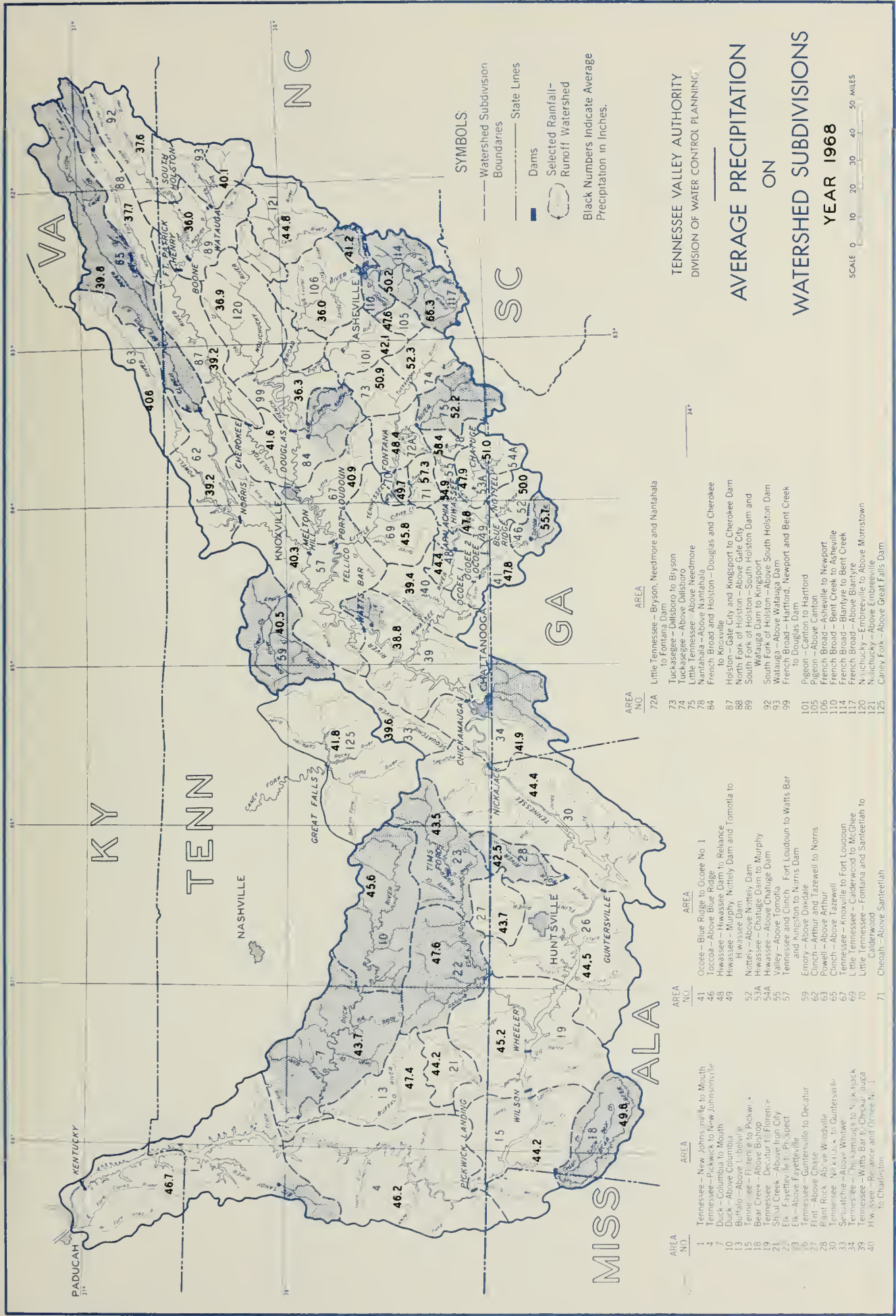
AVERAGE PRECIPITATION ON WATERSHED SUBDIVISIONS

1968 MONTHLY AND ANNUAL

Average Precipitation - Inches

Subdivision	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
Entire Tennessee River Basin	4.94	1.08	5.09	4.90	5.00	2.64	3.74	2.41	3.15	3.05	3.51	4.09	43.60
30-Yr Average	5.47	5.26	5.67	4.46	3.81	3.96	4.90	3.90	3.17	2.65	3.97	4.54	51.76
Area Above Chattanooga	4.65	0.85	4.64	4.86	4.28	3.51	4.04	2.77	2.74	3.31	2.84	3.77	42.26
30-Yr Average	5.07	5.00	5.42	4.22	3.79	4.12	5.34	4.27	3.22	2.77	3.68	4.34	51.24
Area Below Chattanooga	5.28	1.34	5.60	4.94	5.82	1.64	3.40	2.00	3.63	2.75	4.29	4.46	45.15
30-Yr Average	5.93	5.55	5.96	4.74	3.84	3.78	4.39	3.48	3.12	2.51	4.30	4.75	52.35
French Broad Above Newport	3.86	0.66	5.38	3.86	3.72	5.10	4.51	3.06	2.64	5.37	3.14	3.21	44.51
30-Yr Average	4.42	4.42	5.21	4.20	3.75	4.49	5.76	5.26	3.75	3.31	3.44	3.91	51.92
French Broad Above Douglas Dam	4.09	0.68	4.84	4.34	3.36	4.80	4.31	3.12	2.24	4.51	2.78	3.06	42.13
30-Yr Average	4.39	4.41	5.08	3.97	3.68	4.22	5.55	4.73	3.42	3.00	3.35	3.78	49.58
Holston Above Cherokee Dam	3.93	0.56	4.10	5.08	3.93	2.86	3.84	3.40	1.99	3.50	2.17	2.61	37.97
30-Yr Average	4.07	4.00	4.50	3.45	3.79	3.84	5.14	4.03	2.89	2.41	3.05	3.43	44.60
Holston and French Broad Above Knoxville	4.08	0.66	4.50	4.70	3.61	4.07	4.28	3.12	2.15	3.91	2.54	2.96	40.58
30-Yr Average	4.33	4.32	4.87	3.77	3.73	4.05	5.36	4.38	3.17	2.73	3.27	3.68	47.66
Little Tennessee Above McGhee	5.74	1.32	5.63	4.99	4.98	3.95	4.46	3.33	3.51	3.36	3.94	5.40	50.61
30-Yr Average	6.15	6.04	6.55	5.02	4.11	4.63	6.03	4.90	3.56	3.22	4.26	5.22	59.69
Little Tennessee Above Fontana Dam	5.50	1.30	6.08	4.97	4.65	4.20	4.20	3.78	3.65	3.45	4.27	5.68	51.73
30-Yr Average	6.19	6.10	6.67	5.08	4.07	4.65	6.13	5.04	3.77	3.36	4.20	5.33	60.59
Clinch Above Norris Dam	3.73	0.66	4.20	4.98	4.56	2.97	4.75	3.18	2.66	2.58	2.44	3.10	39.81
30-Yr Average	4.62	4.48	4.96	3.61	3.81	4.04	5.06	3.98	2.87	2.40	3.35	3.83	47.01
Hivasssee Above Charleston	5.51	1.28	4.93	4.89	5.10	2.88	4.16	2.73	3.81	3.13	3.73	5.11	47.26
30-Yr Average	5.98	5.94	6.36	5.12	3.91	4.45	5.73	4.49	3.42	3.06	4.13	5.18	57.77
Hivasssee Above Hivasssee Dam	5.51	1.32	5.14	5.36	4.83	3.27	5.15	3.01	3.94	2.83	4.07	5.24	49.67
30-Yr Average	5.97	5.99	6.45	5.25	3.99	4.68	6.08	4.75	3.58	3.17	3.99	5.20	59.10

Note: 30-Year Averages Based on 1935-1964 Averages.



TENNESSEE VALLEY AUTHORITY
DIVISION OF WATER CONTROL PLANNING

AVERAGE PRECIPITATION ON

WATERSHED SUBDIVISIONS

YEAR 1968

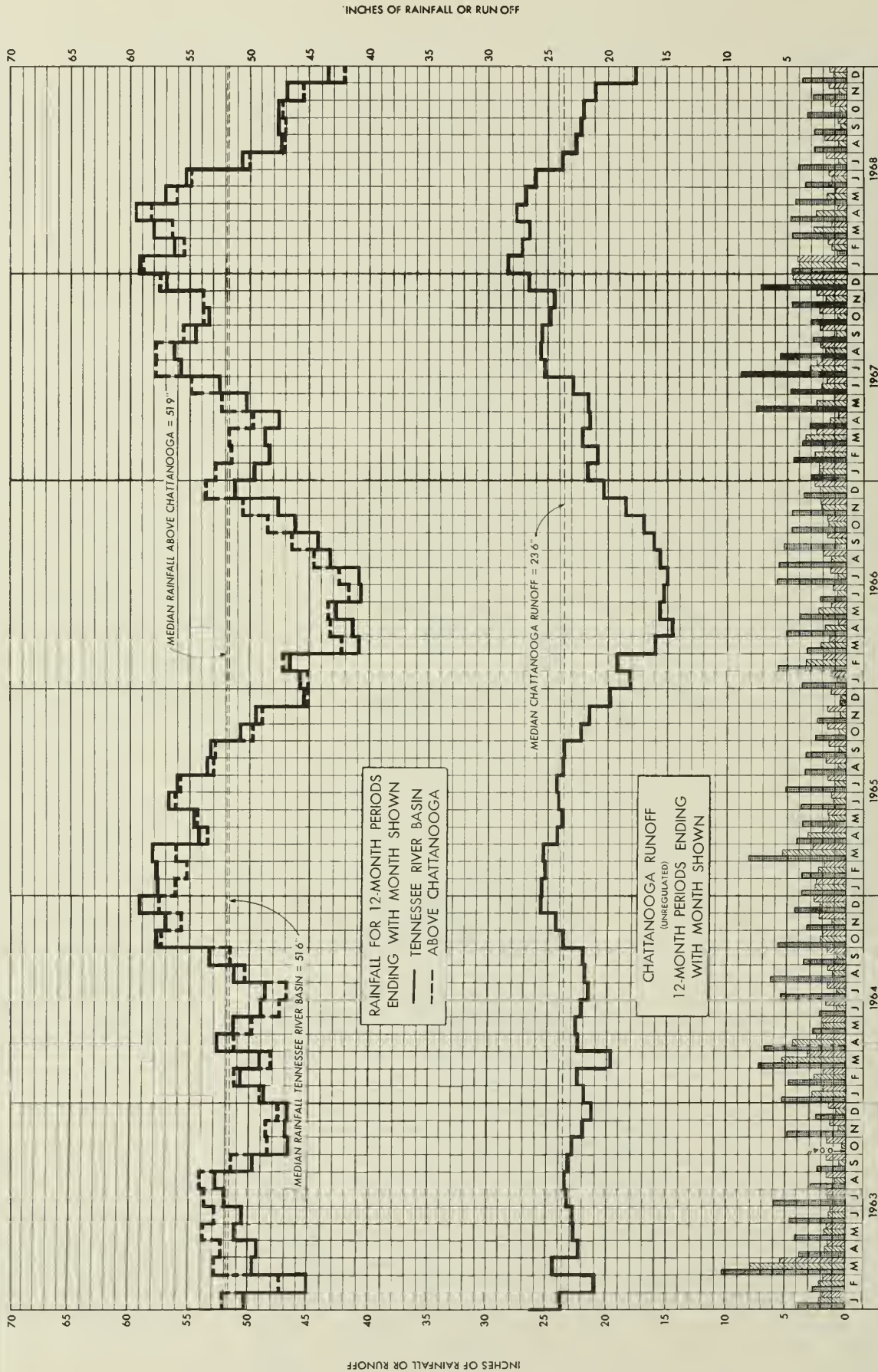
SCALE 0 10 20 30 40 50 MILES

SYMBOLS

- Watershed Subdivision Boundaries
- State Lines
- Dams
- Selected Rainfall-Runoff Watershed

Black Numbers Indicate Average Precipitation in Inches.

AREA NO.	AREA	AREA NO.	AREA	AREA NO.	AREA
1	Tennessee - New Johnsonville to Mouth	72A	Little Tennessee - Bryson, Needmore and Nantahala to Fontana Dam	101	Pigeon - Canton to Hartford
4	Tennessee - Pickwick to New Johnsonville	73	Tuckasee - Dillsboro to Bryson	102	Pigeon - Canton to Nashville
10	Duck - Columbia to Mouth	74	Tuckasee - Above Dillsboro	106	French Broad - Above Nashville
13	Buffalo - Above Chattanooga	75	Little Tennessee - Above Needmore	110	French Broad - Bent Creek to Asheville
15	Tennessee - Above Florence	78	Nantahala - Above Nantahala	114	French Broad - Blount to Bent Creek
18	Bear Creek - Above Bishop	84	French Broad and Holston - Douglas and Cherokee to Knoxville	117	French Broad - Above Blount
19	Tennessee - Decatur to Florence	87	Holston - Above Kingsport to Cherokee Dam	120	Nichucky - Emburyville to Above Morristown
21	Shiloh Creek - Above Iron City	88	North Fork Holston - Above Galt City	121	Nichucky - Above Emburyville
22	Elk - Fayetteville to Pisect	89	South Fork of Holston - South Holston Dam and Watauga Dam to Kingsport	122	Caney Fork - Above Great Falls Dam
23	Elk - Above Fayetteville	92	South Fork of Holston - Above South Holston Dam		
24	Tennessee - Gunterville to Decatur	93	Watauga - Above Watauga Dam		
25	Plant River - Above Wadley	94	Watauga - Above Watauga Dam		
28	Tennessee - New Johnsonville to Gunterville	99	French Broad - Hartford, Newport and Bent Creek to Douglas Dam		
30	Seneca - Above White	101	Pigeon - Canton to Hartford		
33	Seneca - Above White	102	Pigeon - Canton to Nashville		
34	Tennessee - Hickamuga to Natchez	106	French Broad - Above Nashville		
39	Tennessee - Watts Bar to Chickamauga	110	French Broad - Bent Creek to Asheville		
40	Hwasee - Reance and Ocoee N. 1 to Charleston	114	French Broad - Blount to Bent Creek		



SYMBOLS:

- MONTHLY RAINFALL ABOVE CHATTANOOGA
- MONTHLY RUNOFF AT CHATTANOOGA (UNREGULATED)
- ACTUAL MONTHLY RUNOFF AT CHATTANOOGA (REGULATED)

RAINFALL AND RUNOFF
IN THE
TENNESSEE RIVER BASIN

MONTHLY AND ANNUAL RAINFALL AND RUNOFF
TENNESSEE RIVER ABOVE CHATTANOOGA, TENNESSEE

Drainage Area - 21,400 Square Miles

	<u>Jan.</u>	<u>Feb.</u>	<u>Mar.</u>	<u>Apr.</u>	<u>May</u>	<u>June</u>	<u>July</u>	<u>Aug.</u>	<u>Sept.</u>	<u>Oct.</u>	<u>Nov.</u>	<u>Dec.</u>	<u>Annual</u>
	<u>Rainfall in Inches, 1890 - 1968</u>												
1968	4.65	0.85	4.64	4.86	4.28	3.51	4.04	2.77	2.74	3.31	2.84	3.77	42.26
Maximum	10.32	9.69	11.40	7.49	7.95	8.67	11.07	13.33	7.69	8.37	10.30	9.98	64.09
Minimum	1.42	0.85	1.37	0.95	0.80	1.73	2.02	1.25	0.77	0.04	0.44	0.54	37.23
Mean ^a	4.57	4.71	5.38	4.20	4.04	4.45	5.27	4.50	3.26	2.90	3.28	4.55	51.11
Median ^a	4.23	4.47	5.15	4.15	3.80	4.49	5.07	4.15	3.21	2.48	3.13	4.20	51.94

a. For Period 1890-1964

	<u>Runoff in Inches, 1874 - 1968</u> (Unregulated)												
1968	4.04	1.31	2.79	2.57	1.65	1.26	0.70	0.70	0.49	0.58	0.66	1.11	17.86
Maximum	9.42	7.45	9.62	7.11	5.28	3.75	3.90	4.28	2.69	3.17	3.77	5.11	36.54
Minimum	0.50	0.62	1.30	1.01	0.61	0.50	0.45	0.26	0.21	0.30	0.30	0.41	11.22
Mean ^b	3.03	3.27	3.81	2.98	1.99	1.42	1.32	1.13	0.84	0.80	1.10	1.93	23.62
Median ^b	2.76	3.11	3.28	2.73	1.76	1.26	1.11	0.96	0.69	0.70	0.84	1.68	23.61

b. For Period 1874-1964

	<u>Runoff in Cubic Feet Per Second, 1874 - 1968</u> (Unregulated)												
1968	75,100	26,100	51,900	49,300	30,700	24,200	13,000	12,900	9,400	10,900	12,700	20,600	28,100
Maximum	174,800	147,800	178,500	136,400	98,000	72,000	72,300	79,400	51,500	58,900	72,400	94,800	57,600
Minimum	9,200	12,700	24,100	19,400	11,300	9,600	8,300	4,760	3,990	5,510	5,800	7,700	17,690
Mean ^b	56,200	66,600	70,700	57,200	36,900	27,200	24,500	21,000	16,100	14,800	21,100	35,800	37,200
Median ^b	51,200	63,400	60,900	52,400	32,700	24,200	20,600	17,800	13,200	13,000	16,100	31,200	37,200

b. For Period 1874-1964

RAINFALL AND RUNOFF FOR SELECTED WATERSHEDS

Stream	Station	Drainage Area sq. mi.	January 1 - December 31, 1968			Runoff in Percent of Rainfall	Rainfall Minus Runoff inches
			Rain- fall inches	Depar- ture inches	Depar- ture inches		
Big Sandy River	Bruceton	205	50.7	-0.9	16.2	32.0	34.5
Duck River	Harricane Mills	2571	44.4	-6.5	16.6	37.4	27.8
Bear Creek	Bishop	667	49.6	-4.2	20.9	42.1	28.7
Elk River	Prospect	1784	45.7	-8.5	19.1	41.8	26.6
Paint Rock River	Woodville	320	42.5	-13.4	20.3	47.8	22.2
South Chickamauga Creek	Chickamauga	428	41.1	-12.8	14.7	35.8	26.4
Toccoa River	Dial	177	55.9	-9.9	35.0	62.6	20.9
Sewee Creek	Decatur	117	36.6	-16.2	14.0	38.3	22.6
Emory River	Oakdale	764	40.5	-12.3	16.6	41.0	23.9
Clinch River	Tazewell	1474	39.8	-5.5	14.6	36.7	25.2
Little Tennessee River	Needmore	436	52.2	-9.8	27.1	51.9	25.1
North Fork Holston River	Saltville	222	35.9	-5.5	14.0	39.0	21.9
Little Pigeon River	Sevierville	353	45.5	-9.0	17.0	37.4	28.5
French Broad River	Asheville	945	52.7	-5.7	25.0	47.4	27.7

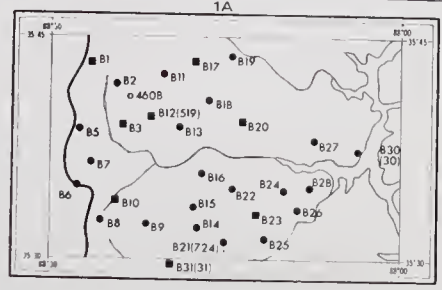
a. Rainfall and runoff departures are referred to the 33-year period 1935-1967, except runoff departures for Paint Rock River, 1936-1967.

Locations of watersheds are shown on map "Average Precipitation on Watershed Subdivisions. Runoff data are furnished by the U. S. Geological Survey and are tentative.

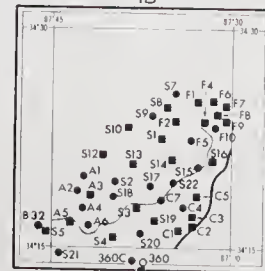
EVAPORATION DATA—YEAR 1968

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
Evaporation (Inches)													
Murphy, N. C.	0.74a	1.72a	3.26	3.75	4.86	5.46	5.40	5.63	3.66	2.69	1.72	1.39	40.28a
Beetree Dam, N. C.	0.87	1.50a	2.76a	3.96	4.49	4.81	4.77	4.93	2.85	1.92a	1.28a	0.65	34.79a
Jefferson City, Tenn.	0.78a	1.50a	3.41	3.75	4.72	5.56	5.98a	5.85	3.45	2.37	1.18	0.87a	39.42a
Pulaski, Tenn.	0.87a	1.45a	2.94a	4.13a	5.58a	6.92	6.66	6.80	4.05a	3.14	1.85	1.18	45.57a
Marion, Va.	----	----	----	3.86	4.35	4.96a	5.26a	5.06a	4.26	2.71a	1.15a	----	-----
Precipitation (Inches)													
Murphy, N. C.	5.75	1.37	5.03	5.05	6.13	2.93	4.54	4.75	3.20	3.21	4.20	5.53	51.69
Beetree Dam, N. C.	2.95	0.61	5.09	3.98	2.22	4.54	3.31	3.60	2.21	7.37	3.19	2.56	41.63
Jefferson City, Tenn.	3.95	0.93	3.99	4.88	3.39	3.71	9.68	1.91	2.03	1.76	2.27	3.23	41.73
Pulaski, Tenn.	4.85	1.25	6.84	5.01	7.28	0.69	2.74	1.16	6.46	2.52	3.09	4.57	46.46
Marion, Va.	3.60	0.56	3.43	5.21	4.96	2.90	2.77	2.90a	1.14	3.82	1.81	2.37	35.47a
Average Air Temperature (Degrees F)													
Murphy, N. C.	36	32	46	56	62	70	74	73	63	54	42	35	54
Beetree Dam, N. C.	34	29	44	53	58	66	68	69	60	52	42	33	51
Jefferson City, Tenn.	34	32	49	57	63	72	75	76	66	57	45	33	55
Pulaski, Tenn.	36	33	49	59	65	74	75	78	67	58	48	38	57
Marion, Va.	30	28	45	54	58	68	71	72	64	55	44	33	52
Average Water Temperature (Degrees F)													
Murphy, N. C.	39a	38a	54	62	69	78	81	82	72	60	47	38a	60a
Beetree Dam, N. C.	36a	--	50a	59	67	76	79	80	68	57a	--	--	--
Jefferson City, Tenn.	38a	37a	55	62a	70	79	82	84	72	60	48	38a	60a
Pulaski, Tenn.	40a	41a	55a	62	71	80	83	84	72	62	51	41a	62a
Marion, Va.	--	--	--	60	67	77	79	78	69	58	--	--	--
Average Relative Humidity (Percent)													
Murphy, N. C.	88	68	74	80	82	85	88	87	87	83	85	79	82
Beetree Dam, N. C.	83	57	63	71	81	89	94	92	91	87	86	76	81
Jefferson City, Tenn.	77	57	62	68	70	74	77	78	75	73	75	67	71
Pulaski, Tenn.	87	73	78	86	87	85	87	81	84	80	80	80	82
Marion, Va.	--	--	--	--	--	--	--	--	--	--	--	--	--
Average Wind Velocity (Miles Per Hour)													
Murphy, N. C.	0.72	1.46	1.30	0.88	0.69	0.45	0.38	0.31	0.40	0.60	0.77	1.01	0.75
Beetree Dam, N. C.	0.89	1.67	1.77	1.01	-----	0.48	0.35	0.35	0.38	0.63	1.08	1.64	-----
Jefferson City, Tenn.	1.11	1.62	1.88	1.14	0.99	0.77	0.72	0.72	0.51	0.76	1.04	1.29	1.05
Pulaski, Tenn.	0.73	1.21	1.36	1.21	1.00	0.76	0.48	0.34	0.31	0.75	1.20	1.40	0.90
Marion, Va.	1.86	2.83	2.47	1.17	1.52	1.06	-----	-----	1.19	1.31	-----	2.68	-----

a = Partly estimated



BEECH RIVER WATERSHED



UPPER BEAR CREEK
EXPERIMENTAL WATERSHED

LEGEND

- | | |
|-------------------------|-----------------------------|
| T.V.A. | U.S.W.B. and Other Agencies |
| Nonrecording rain gages | ○ |
| Recording rain gages | □ |
| Radio rain gages | |
| Dams | |

Red numbers denote the respective tables in which records of rainfall stations within the areas shown are listed.

TENNESSEE VALLEY AUTHORITY
DIVISION OF WATER CONTROL PLANNING

TENNESSEE RIVER BASIN
INDEX TO
RAINFALL STATIONS

SCALE 0 10 20 30 40 50 MILES

Figures in the "mean or normal" column in the following tabulation are determined as follows: For the U. S. Weather Bureau stations, the figures are normals based on the 30-year period 1931-1960, computed by the Weather Bureau. For TVA and other agency stations with 18 or more years of record through 1964, the figures are long-term means adjusted to the 30-year period 1935-1964. For stations with 5 to 17 years of record in 1964, the figures are running averages for the period of record. No means are listed for records of less than 5 complete years.

TABLE 1
PRECIPITATION
IN
WATERSHED SUBDIVISION NO. 1
TENNESSEE RIVER AND MINOR TRIBUTARIES
MOUTH TO KNOXVILLE

ANNUAL 1968 PRECIPITATION - In Inches

TENNESSEE VALLEY AUTHORITY

DIVISION OF WATER CONTROL PLANNING

Sta. No.	Station Name and Location	Index Owner	Elev.	Yrs. of Record	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER		YEAR		Depth of Snow (inches)
					Total	Nor.'1	Total	Nor.'1	Total	Nor.'1	Total	Nor.'1	Total	Nor.'1	Total	Nor.'1	Total	Nor.'1	Total	Nor.'1	Total	Nor.'1	Total	Nor.'1	Total	Nor.'1	Total	Nor.'1	Total	Nor.'1	
TENNESSEE RIVER ROUTE TO WHEELER DAM-SUBDIVISION NO. 1																															
1	PAUCAM SPRING XX	A-1	US48	87	1.58	4.74	1.36	3.26	5.73	4.85	4.48	4.26	5.84	4.40	2.79	3.78	3.67	3.48	4.05	3.32	3.62	3.12	1.75	2.79	5.02	3.96	5.37	3.59	45.26	46.05	11.1
2	PAUCAM SPRING XX	A-1	US48	87	1.58	4.74	1.36	3.26	5.73	4.85	4.48	4.26	5.84	4.40	2.79	3.78	3.67	3.48	4.05	3.32	3.62	3.12	1.75	2.79	5.02	3.96	5.37	3.59	45.26	46.05	11.1
3	PAUCAM SPRING XX	A-1	US48	87	1.58	4.74	1.36	3.26	5.73	4.85	4.48	4.26	5.84	4.40	2.79	3.78	3.67	3.48	4.05	3.32	3.62	3.12	1.75	2.79	5.02	3.96	5.37	3.59	45.26	46.05	11.1
4	PAUCAM SPRING XX	A-1	US48	87	1.58	4.74	1.36	3.26	5.73	4.85	4.48	4.26	5.84	4.40	2.79	3.78	3.67	3.48	4.05	3.32	3.62	3.12	1.75	2.79	5.02	3.96	5.37	3.59	45.26	46.05	11.1
5	PAUCAM SPRING XX	A-1	US48	87	1.58	4.74	1.36	3.26	5.73	4.85	4.48	4.26	5.84	4.40	2.79	3.78	3.67	3.48	4.05	3.32	3.62	3.12	1.75	2.79	5.02	3.96	5.37	3.59	45.26	46.05	11.1
6	PAUCAM SPRING XX	A-1	US48	87	1.58	4.74	1.36	3.26	5.73	4.85	4.48	4.26	5.84	4.40	2.79	3.78	3.67	3.48	4.05	3.32	3.62	3.12	1.75	2.79	5.02	3.96	5.37	3.59	45.26	46.05	11.1
7	PAUCAM SPRING XX	A-1	US48	87	1.58	4.74	1.36	3.26	5.73	4.85	4.48	4.26	5.84	4.40	2.79	3.78	3.67	3.48	4.05	3.32	3.62	3.12	1.75	2.79	5.02	3.96	5.37	3.59	45.26	46.05	11.1
8	PAUCAM SPRING XX	A-1	US48	87	1.58	4.74	1.36	3.26	5.73	4.85	4.48	4.26	5.84	4.40	2.79	3.78	3.67	3.48	4.05	3.32	3.62	3.12	1.75	2.79	5.02	3.96	5.37	3.59	45.26	46.05	11.1
9	PAUCAM SPRING XX	A-1	US48	87	1.58	4.74	1.36	3.26	5.73	4.85	4.48	4.26	5.84	4.40	2.79	3.78	3.67	3.48	4.05	3.32	3.62	3.12	1.75	2.79	5.02	3.96	5.37	3.59	45.26	46.05	11.1
10	PAUCAM SPRING XX	A-1	US48	87	1.58	4.74	1.36	3.26	5.73	4.85	4.48	4.26	5.84	4.40	2.79	3.78	3.67	3.48	4.05	3.32	3.62	3.12	1.75	2.79	5.02	3.96	5.37	3.59	45.26	46.05	11.1
11	PAUCAM SPRING XX	A-1	US48	87	1.58	4.74	1.36	3.26	5.73	4.85	4.48	4.26	5.84	4.40	2.79	3.78	3.67	3.48	4.05	3.32	3.62	3.12	1.75	2.79	5.02	3.96	5.37	3.59	45.26	46.05	11.1
12	PAUCAM SPRING XX	A-1	US48	87	1.58	4.74	1.36	3.26	5.73	4.85	4.48	4.26	5.84	4.40	2.79	3.78	3.67	3.48	4.05	3.32	3.62	3.12	1.75	2.79	5.02	3.96	5.37	3.59	45.26	46.05	11.1
13	PAUCAM SPRING XX	A-1	US48	87	1.58	4.74	1.36	3.26	5.73	4.85	4.48	4.26	5.84	4.40	2.79	3.78	3.67	3.48	4.05	3.32	3.62	3.12	1.75	2.79	5.02	3.96	5.37	3.59	45.26	46.05	11.1
14	PAUCAM SPRING XX	A-1	US48	87	1.58	4.74	1.36	3.26	5.73	4.85	4.48	4.26	5.84	4.40	2.79	3.78	3.67	3.48	4.05	3.32	3.62	3.12	1.75	2.79	5.02	3.96	5.37	3.59	45.26	46.05	11.1
15	PAUCAM SPRING XX	A-1	US48	87	1.58	4.74	1.36	3.26	5.73	4.85	4.48	4.26	5.84	4.40	2.79	3.78	3.67	3.48	4.05	3.32	3.62	3.12	1.75	2.79	5.02	3.96	5.37	3.59	45.26	46.05	11.1
16	PAUCAM SPRING XX	A-1	US48	87	1.58	4.74	1.36	3.26	5.73	4.85	4.48	4.26	5.84	4.40	2.79	3.78	3.67	3.48	4.05	3.32	3.62	3.12	1.75	2.79	5.02	3.96	5.37	3.59	45.26	46.05	11.1
17	PAUCAM SPRING XX	A-1	US48	87	1.58	4.74	1.36	3.26	5.73	4.85	4.48	4.26	5.84	4.40	2.79	3.78	3.67	3.48	4.05	3.32	3.62	3.12	1.75	2.79	5.02	3.96	5.37	3.59	45.26	46.05	11.1
18	PAUCAM SPRING XX	A-1	US48	87	1.58	4.74	1.36	3.26	5.73	4.85	4.48	4.26	5.84	4.40	2.79	3.78	3.67	3.48	4.05	3.32	3.62	3.12	1.75	2.79	5.02	3.96	5.37	3.59	45.26	46.05	11.1
19	PAUCAM SPRING XX	A-1	US48	87	1.58	4.74	1.36	3.26	5.73	4.85	4.48	4.26	5.84	4.40	2.79	3.78	3.67	3.48	4.05	3.32	3.62	3.12	1.75	2.79	5.02	3.96	5.37	3.59	45.26	46.05	11.1
20	PAUCAM SPRING XX	A-1	US48	87	1.58	4.74	1.36	3.26	5.73	4.85	4.48	4.26	5.84	4.40	2.79	3.78	3.67	3.48	4.05	3.32	3.62	3.12	1.75	2.79	5.02	3.96	5.37	3.59	45.26	46.05	11.1
21	PAUCAM SPRING XX	A-1	US48	87	1.58	4.74	1.36	3.26	5.73	4.85	4.48	4.26	5.84	4.40	2.79	3.78	3.67	3.48	4.05	3.32	3.62	3.12	1.75	2.79	5.02	3.96	5.37	3.59	45.26	46.05	11.1
22	PAUCAM SPRING XX	A-1	US48	87	1.58	4.74	1.36	3.26	5.73	4.85	4.48	4.26	5.84	4.40	2.79	3.78	3.67	3.48	4.05	3.32	3.62	3.12	1.75	2.79	5.02	3.96	5.37	3.59	45.26	46.05	11.1
23	PAUCAM SPRING XX	A-1	US48	87	1.58	4.74	1.36	3.26	5.73	4.85	4.48	4.26	5.84	4.40	2.79	3.78	3.67	3.48	4.05	3.32	3.62	3.12	1.75	2.79	5.02	3.96	5.37	3.59	45.26	46.05	11.1
24	PAUCAM SPRING XX	A-1	US48	87	1.58	4.74	1.36	3.26	5.73	4.85	4.48	4.26	5.84	4.40	2.79	3.78	3.67	3.48	4.05	3.32	3.62	3.12	1.75	2.79	5.02	3.96	5.37	3.59	45.26	46.05	11.1
25	PAUCAM SPRING XX	A-1	US48	87	1.58	4.74	1.36	3.26	5.73	4.85	4.48	4.26	5.84	4.40	2.79	3.78	3.67	3.48	4.05	3.32	3.62	3.12	1.75	2.79	5.02	3.96	5.37	3.59	45.26	46.05	11.1
26	PAUCAM SPRING XX	A-1	US48	87	1.58	4.74	1.36	3.26	5.73	4.85	4.48	4.26	5.84	4.40	2.79	3.78	3.67	3.48	4.05	3.32	3.62	3.12	1.75	2.79	5.02	3.96	5.37	3.59	45.26	46.05	11.1
27	PAUCAM SPRING XX	A-1	US48	87	1.58	4.74	1.36	3.26	5.73	4.85	4.48	4.26	5.84	4.40	2.79	3.78	3.67	3.48	4.05	3.32	3.62	3.12	1.75	2.79	5.02	3.96	5.37	3.59	45.26	46.05	11.1
28	PAUCAM SPRING XX	A-1	US48	87	1.58	4.74	1.36	3.26	5.73	4.85	4.48	4.26	5.84	4.40	2.79	3.78	3.67	3.48	4.05	3.32	3.62	3.12	1.75	2.79	5.02	3.96	5.37	3.59	45.26	46.05	11.1
29	PAUCAM SPRING XX	A-1	US48	87	1.58	4.74	1.36	3.26	5.73	4.85	4.48	4.26	5.84	4.40	2.79	3.78	3.67	3.48	4.05	3.32	3.62	3.12	1.75	2.79	5.02	3.96	5.37	3.59	45.26	46.05	11.1
30	PAUCAM SPRING XX	A-1	US48	87	1.58	4.74	1.36	3.26	5.73	4.85	4.48	4.26	5.84	4.40	2.79	3.78	3.67	3.48	4.05	3.32	3.62	3.12	1.75	2.79	5.02	3.96	5.37	3.59	45.26	46.05	11.1
31	PAUCAM SPRING XX	A-1	US48	87	1.58	4.74	1.36	3.26	5.73	4.85	4.48	4.26	5.84	4.40	2.79	3.78	3.67	3.48	4.05	3.32	3.62	3.12	1.75	2.79	5.02	3.96	5.37	3.59	45.26	46.05	11.1
32	PAUCAM SPRING XX	A-1	US48	87	1.58	4.74	1.36	3.26	5.73	4.85	4.48	4.26	5.84	4.40	2.79	3.78	3.67	3.48	4.05	3.32	3.62	3.12	1.75	2.79	5.02	3.96	5.37	3.59	45.26	46.05	11.1
33	PAUCAM SPRING XX	A-1	US48	87	1.58	4.74	1.36	3.26	5.73	4.85	4.48	4.26	5.84	4.40	2.79	3.78	3.67	3.48	4.05	3.32	3.62	3.12	1.75	2.79	5.02	3.96	5.37	3.59	45.26	46.05	11.1
34	PAUCAM SPRING XX	A-1	US48	87	1.58	4.74	1.36	3.26	5.73	4.85	4.48	4.26	5.84	4.40	2.79	3.78	3.67	3.48	4.05	3.32	3.62	3.12	1.75	2.79	5.02	3.96	5.37	3.59	45.26	46.05	11.1
35	PAUCAM SPRING XX	A-1	US48	87	1.58	4.74	1.36	3.26	5.73	4.85	4.48	4.26	5.84	4.40	2.79	3.78	3.67	3.48	4.05	3.32	3.62	3.12	1.75	2.79	5.02	3.96	5.37	3.59	45.26	46.05	11.1
36	PAUCAM SPRING XX	A-1	US48	87	1.58	4.74	1.36	3.26	5.73	4.85	4.48	4.26	5.84	4.40	2.79	3.78	3.67	3.48	4.05	3.32	3.62	3.12	1.75	2.79	5.02	3.96	5.37	3.59	45.26	46.05	11.1
37	PAUCAM SPRING XX	A-1	US48	87	1.58	4.74	1.36	3.26	5.73	4.85	4.48	4.26	5.84	4.40	2.79	3.78	3.67	3.48	4.05	3.32	3.62	3.12	1.75	2.79	5.02	3.96	5.37	3.59	45.26	46.05	11.1
38	PAUCAM SPRING XX	A-1	US48	87	1.58	4.74	1.36	3.26	5.73	4.85	4.48	4.26	5.84	4.40	2.79	3.78	3.67	3.48	4.05	3.32	3.62	3.12	1.75	2.79	5.02	3.96	5.37	3.59	45.26	46.05	11.1
39	PAUCAM SPRING XX	A-1	US48	87	1.58	4.74	1.36	3.26	5.73	4.85	4.48	4.26	5.84	4.40	2.79	3.78	3.67	3.48	4.05	3.32	3.62	3.12	1.75	2.79	5.02	3.96	5.37	3.59	45.26	46.05	11.1
40	PAUCAM SPRING XX	A-1	US48	87	1.58	4.74	1.36	3.26	5.73	4.85	4.48	4.26	5.84	4.40	2.79	3.78	3.67	3.48	4.05	3.32	3.62	3.12	1.75	2.79	5.02	3.96	5.37	3.59	45.26	46.05	11.1
41	PAUCAM SPRING XX	A-1	US48	87	1.58	4.74	1.36	3.26	5.73	4.85	4.48	4.26	5.84	4.40	2.79	3.78	3.67	3.48	4.05	3.32	3.62	3.12	1.75	2.79	5.02	3.96	5.37	3.59	45.26	46.05	11.1
42	PAUCAM SPRING XX	A-1	US48	87	1.58	4.74	1.36	3.26	5.73	4.85	4.48	4																			

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[illegible]

TABLE 2
PRECIPITATION
IN
WATERSHED SUBDIVISION NO. 2
DUCK RIVER

ANNUAL 1968 PRECIPITATION - In Inches

DIVISION OF WATER CONTROL PLANNING

Sta. No.	Station Name and Location	Index	Owner	Elev.	Yrs. of Record	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER		YEAR		Depth of Snow (Inches)
						Total	Nor.'l	Total	Nor.'l	Total	Nor.'l	Total	Nor.'l	Total	Nor.'l	Total	Nor.'l	Total	Nor.'l	Total	Nor.'l	Total	Nor.'l	Total	Nor.'l	Total	Nor.'l	Total	Nor.'l	Total	Nor.'l	
DUCK RIVER-SUBDIVISION NO. 2																																
459	PLEASANTVILLE	8-3	TVA	525	29	4.46	6.48	1.05	5.33	3.73	5.92	4.43	4.88	5.07	4.26	1.39	4.29	3.19	3.68	1.87	3.92	2.60	2.81	2.35	2.99	0.90	4.57	3.67	4.72	39.81	52.95	12.0
589A	LINGER HILL R	8-3	USAB	498	15	5.04	5.89	1.41	4.91	4.46	5.92	5.06	4.63	5.76	4.89	1.75	3.21	3.76	4.08	1.94	4.66	1.85	2.93	5.38	2.10	0.93	4.52	1.67	4.72	47.10	57.70	16.0
505	SUGAR HILL R	8-3	TVA	580	28	5.33	6.41	1.31	5.42	4.13	5.48	5.33	4.57	5.46	3.93	1.93	3.56	6.33	3.17	4.86	3.99	2.49	2.78	2.96	2.00	6.92	4.33	4.62	51.35	50.28	16.0	
18	HOENOWALD	8-3	TVA	975	81	5.55	6.32	1.35	5.53	5.07	5.61	4.54	4.80	6.07	4.09	1.30	3.61	4.31	3.95	1.46	3.69	3.62	2.88	3.35	2.47	6.36	4.24	4.58	46.16	51.91	20.4	
19	WAYNESBORO	8-3	USAB	730	84	6.00	6.13	1.69	5.77	5.61	5.75	5.03	4.87	6.21	4.21	2.68	4.45	3.68	4.54	1.21	3.73	2.81	3.16	5.15	2.77	5.21	4.67	5.24	5.15	50.92	55.20	24.8
728	MCWEN	8-2	TVA	805	16	3.76	4.85	1.20	4.81	5.24	5.51	5.48	4.99	4.61	4.44	2.26	4.20	3.07	4.41	1.56	3.40	1.88	3.09	3.54	2.00	7.80	3.89	3.13	4.30	43.53	54.00	20.0
20	PIKEWOOD	8-3	TVA	550	53	3.73	6.28	0.75	5.03	3.69	5.75	4.83	4.45	4.53	3.78	2.28	3.73	2.05	4.06	1.30	3.29	2.63	2.60	2.62	2.38	0.97	3.97	3.88	4.36	39.26	49.68	20.5
21	OLICKSON	8-2	USAB	800	77	3.63	6.06	0.98	4.76	5.47	5.77	5.04	4.51	5.32	4.24	4.08	3.72	3.74	4.48	1.35	3.42	2.36	2.88	2.71	2.70	0.14	4.07	3.82	4.63	44.84	50.94	22.8
470	CENTREVILLE SUBSTA.	8-3	TVA	480	29	4.28	6.56	1.11	5.31	4.24	5.47	4.87	4.71	6.33	3.74	2.02	3.93	4.84	4.20	0.38	4.00	2.62	2.68	2.68	2.04	0.56	4.25	3.59	4.50	43.92	51.29	17.5
8-3	SHADY GROVE R	8-3	TVA	560	30	5.11	5.76	1.56	5.58	5.07	5.15	5.74	4.54	5.32	3.43	1.63	3.76	2.14	4.26	1.66	3.49	3.99	2.53	3.29	2.03	5.88	4.13	4.24	4.35	44.83	49.03	
8-3	SHADY GROVE R	8-3	TVA	560	30	5.11	5.76	1.56	5.58	5.07	5.15	5.74	4.54	5.32	3.43	1.63	3.76	2.14	4.26	1.66	3.49	3.99	2.53	3.29	2.03	5.88	4.13	4.24	4.35	44.83	49.03	
687	MONSANTO R EX	8-3	USAB	625	21	5.36	5.89	0.80	5.32	6.29	5.09	4.15	4.15	3.98	4.45	1.12	3.76	0.63	3.94	3.40	3.17	3.44	2.77	3.69	2.31	3.35	3.11	4.10	4.79	45.07	48.76	17.8
72	ESMORO	8-3	USAB	715	64	4.88	5.79	0.82	5.60	6.41	5.48	4.67	4.25	5.84	4.17	1.51	3.67	2.21	3.29	3.32	3.29	4.33	3.49	4.04	3.82	3.84	3.65	4.76	46.00	52.04	18.5	
468	COLUMBIA X	8-3	USAB	675	21	4.93	5.58	1.17	5.72	6.22	5.42	4.99	4.56	5.47	4.64	1.51	3.67	1.82	3.76	1.93	3.79	4.33	3.32	4.61	2.20	3.28	3.96	3.69	4.52	45.59	52.34	18.0
410	COLUMBIA SUBSTA	8-3	TVA	620	30	5.40	5.58	1.07	5.72	5.99	5.42	5.01	4.56	5.52	3.64	2.49	3.87	1.10	3.78	2.76	3.79	3.49	3.32	3.43	2.20	3.12	3.96	3.38	4.52	42.76	50.34	18.3
710	NEAPOLIS	C-3	TVA	720	17	5.23	5.02	0.84	5.17	5.97	5.57	5.24	4.72	5.04	4.40	1.53	3.23	1.00	4.43	2.49	3.45	5.72	2.82	3.49	2.45	3.41	3.42	3.43	4.52	43.84	53.38	18.3
23	FRANKLIN	C-3	USAB	625	80	4.16	5.61	0.93	5.09	5.45	5.32	5.32	4.01	4.60	3.81	2.78	3.50	5.40	3.85	1.88	1.51	4.69	2.77	4.02	2.47	3.07	3.58	4.32	4.50	48.31	48.03	14.5
810	COLLEDA R	C-3	TVA	675	2	5.28		1.61		6.09		3.97				1.24						4.84		2.77		2.77				42.08		
24	LEWISBURG-NEAR	C-3	USAB	787	75	5.09	5.78	1.23	5.91	6.20	5.69	4.83	4.38	7.90	3.72	0.76	3.57	3.44	4.48	3.86	3.05	4.35	3.34	3.67	2.63	2.56	4.12	4.02	4.70	47.93	51.37	16.6
25	PALMETTO X	C-3	USAB	770	79	5.77	5.58	3.00	5.97	5.40	5.16	4.57	4.10	6.21	3.93	2.13	3.51	2.73	4.85	1.17	3.30	4.49	3.18	4.01	2.65	2.97	3.95	4.95	4.57	45.60	50.35	21.0
26	CHAPL HILL	C-3	TVA	705	33	5.62	5.73	1.35	5.89	7.53	5.34	4.39	4.53	5.95	4.03	1.17	3.36	3.70	4.09	2.79	3.49	3.64	3.28	4.78	2.48	3.00	4.27	3.78	4.32	47.88	50.81	13.5
27A	MURFREESBORO X	C-3	USAB	608	87	5.13	5.40	0.95	5.37	7.53	5.30	5.83	3.97	7.76	3.87	1.85	3.04	1.46	4.18	1.40	3.66	2.62	3.20	3.43	2.38	3.36	3.99	3.37	4.38	44.91	48.75	18.6
27B	MURFREESBORO SUBSTA	C-3	TVA	580	29	5.04	5.73	1.00	5.55	6.08	5.58	6.33	4.33	7.88	3.95	2.15	3.36	1.11	4.21	2.98	3.56	2.66	3.19	3.45	2.25	3.49	4.22	3.62	4.32	48.39	50.25	15.8
773	SHELBYVILLE R	C-3	TVA	743	29	5.12	5.83	1.20	6.05	6.80	5.81	4.84	4.57	6.04	4.00	1.93	3.49	5.01	4.03	3.69	4.12	3.60	4.12	2.98	2.79	2.98	4.24	3.62	4.71	44.01	52.00	
449B	SHELBYVILLE-NEAR X	C-3	USAB	755	18	5.46	5.28	1.20	4.97	7.32	5.50	4.33	4.96	6.94	4.83	0.92	3.73	5.19	4.20	1.21	3.97	5.14	3.73	3.21	2.53	2.80	3.91	4.04	4.78	47.04	53.10	15.3
803	WARTACE	C-3	TVA	815	2	5.47		0.96		7.81		4.13		5.20		1.82		5.32				4.26		2.67		2.67				41.39		
804	BELL BUCKLE R	C-3	TVA	870	2	5.18		1.08		6.93		3.92		5.38		1.48		5.59				2.31		2.49		3.39				39.41		
810	BELLMOD R	C-3	TVA	1000	2	5.52		1.10		7.97		4.60		7.14		1.91		4.59				2.49		2.67		3.62				43.49		
806A	SALLIE BRANCH	C-3	TVA	930	2	5.48		1.11		6.19		4.26		6.42		2.06		4.59				3.02		2.67		2.62				44.44		
28	BEECH GROVE-NEAR	C-3	TVA	900	32	6.08	6.10	1.19	5.91	6.46	5.70	5.34	4.08	6.24	4.02	2.41	3.87	2.67	4.30	1.11	3.99	3.00	3.51	3.08	2.33	3.31	4.40	4.76	4.76	46.31	52.97	19.5
808	COSSBURG R	C-3	TVA	950	2	5.59		1.12		7.20		5.40		6.63		2.61		1.87				2.97		3.25		3.08				44.73		
805	NDAM R	C-3	TVA	900	2	5.29		1.06		6.20		5.18		5.04		2.93		3.60				2.87		3.96		2.40				44.81		
809	16TH MOEL	C-3	TVA	1160	2	5.16		1.35		5.91		5.24		5.19		3.44		3.21				1.85		2.87		4.18				43.95		
789	NORMANDY R	C-3	TVA	880	5	5.19		1.50		7.67		4.04		5.98		3.14		2.20				3.19		3.55		3.55				45.87		
804A	WANCHSTER	C-3	TVA	1032	19	5.83	5.06	1.34	5.30	7.45	5.73	5.39	4.88	6.58	4.39	2.11	3.67	4.51	5.33	2.22	3.08	2.46	3.61	2.67	2.40	3.21	4.09	4.11	5.07	47.49	55.63	16.0
807	HOODNOO	C-3	TVA	1237	2	4.18		0.86		6.84		5.38		6.76		2.19		1.96				2.78		2.78		4.19				47.03		

(#)	Interpolated or partly interpolated	(#)	Recorder at present	(#P)	Digital punch

(#) Interpreted or partly interpolated (dp) Digital punch

(R) Recorder at present

TABLE 3
PRECIPITATION
IN
WATERSHED SUBDIVISION NO. 3
ELK RIVER

Sta. No.	Station Name and Location	Index Owner	Elev.	Yrs. of Record	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER		YEAR Total Nor.'l	Depth of Snow (inches)		
					Total	Nor.'l	Total	Nor.'l	Total	Nor.'l	Total	Nor.'l	Total	Nor.'l	Total	Nor.'l	Total	Nor.'l	Total	Nor.'l	Total	Nor.'l	Total	Nor.'l	Total	Nor.'l	Total	Nor.'l			Total	Nor.'l
ELK RIVER-SUBDIVISION NO. 3																																
682	SHOEMAKER SPRINGS	8-4 TVA	740	21	6.30	5.99	1.51	5.71	5.98	6.18	4.07	4.48	7.66	4.13	1.18	4.05	2.56	5.65	2.71	3.03	5.57	3.71	1.67	2.63	3.50	4.59	4.98	4.92	# 43.49	55.07	12.5	
813	REVILLO	8-3 TVA	905	2	4.86	1.19	1.58	6.03	5.32	6.34	4.76	4.76	6.17	4.13	1.35	4.05	6.09	6.09	1.17	3.46	4.53	3.65	3.05	2.87	3.71	4.55	4.75	4.75	# 43.73	55.17	14.3	
54	BETHEL	8-3 TVA	650	34	5.85	6.11	1.58	6.03	5.32	6.34	4.76	4.76	6.17	4.13	1.35	4.05	6.09	6.09	2.28	3.46	4.10	3.63	1.75	2.87	2.73	4.55	5.55	5.16	# 43.66	55.17	14.3	
755A	SHORE	8-3 TVA	920	11	5.31	4.14	1.27	4.69	7.17	6.87	5.50	5.02	8.40	4.71	1.07	3.53	3.93	4.34	0.99	4.12	7.04	3.83	4.77	3.68	4.12	4.59	5.15	5.33	56.72	56.96	14.0	
382A	PULASKI WATER PLANT X	8-3 US48	658	12	5.03	3.79	0.85	4.59	6.49	6.50	4.60	5.08	6.91	4.61	# 0.70	3.74	2.61	4.66	1.13	3.46	6.55	3.91	2.22	2.75	3.03	4.30	4.55	4.99	# 44.69	55.65	13.8	
797	PULASKI EVAPORATION STA	8-3 TVA	655	3	4.85	1.25	1.55	5.01	7.28	6.84	4.07	4.48	7.65	4.13	1.18	4.05	2.56	5.65	1.18	3.46	6.55	3.91	2.22	2.75	3.09	4.57	4.99	4.57	# 44.66	55.65	13.8	
814	HEMLEY	8-3 TVA	710	2	5.00	1.50	1.50	5.01	7.28	6.84	4.07	4.48	7.65	4.13	1.18	4.05	2.56	5.65	1.42	3.46	5.59	3.30	3.30	2.71	# 2.70	4.57	5.16	# 43.07	55.93	15.5		
815	LYNNVILLE NEAR R	8-3 TVA	770	2	6.56	6.01	1.61	6.07	6.17	6.07	4.73	4.69	5.94	4.08	2.31	3.60	4.08	4.08	1.42	3.46	5.59	3.30	3.30	2.71	# 2.70	4.57	5.16	# 43.07	55.93	15.5		
777	OLINA NEAR R	C-3 TVA	755	8	5.09	4.20	1.20	4.76	7.29	7.01	4.13	4.89	7.32	5.09	1.46	2.96	4.06	6.30	0.80	3.42	6.30	3.25	3.39	2.71	# 2.80	4.04	4.95	5.04	# 44.29	56.74	13.5	
581	BONSHILL	C-3 TVA	675	27	5.26	6.34	1.30	6.12	7.52	6.07	3.78	4.49	5.21	5.91	0.93	3.44	5.37	4.15	1.50	3.51	6.17	3.21	3.46	2.82	3.70	4.21	4.81	# 44.33	63.21	13.0		
98A	FARFETVILLE	C-3 TVA	760	17	5.72	4.87	1.58	4.99	7.33	5.84	3.95	5.00	7.03	5.66	0.76	3.02	5.93	4.69	1.54	3.40	4.65	3.88	3.25	2.30	2.92	4.34	5.00	5.61	# 44.71	54.25	15.0	
98	FARFETVILLE	C-3 US48	695	53	5.35	5.87	1.24	5.93	7.69	5.95	4.25	4.23	7.63	4.05	0.89	3.31	5.93	5.05	1.42	3.70	2.47	3.41	2.54	2.66	2.93	4.22	4.76	4.90	# 43.80	56.37	17.5	
605	BELEVILLE	C-3 TVA	755	27	5.66	6.39	1.45	6.24	7.49	5.95	5.16	4.71	6.69	4.24	0.84	3.92	4.98	5.57	1.49	2.91	3.22	4.09	3.20	2.40	2.84	4.02	5.36	4.67	# 44.12	56.89	12.9	
383	PETERSBURG	C-3 TVA	826	30	5.19	6.32	1.22	6.53	6.73	5.85	5.17	4.54	5.62	6.23	0.64	3.79	7.17	5.82	3.91	3.81	5.09	3.54	3.10	2.41	3.09	4.51	# 44.60	5.08	# 53.59	55.93	14.6	
774	BELEFAST SUBSTA	C-3 TVA	860	8	5.32	4.52	1.26	4.70	6.89	6.71	4.20	5.18	6.37	5.18	1.41	4.02	4.12	6.32	1.02	4.02	5.16	3.12	2.73	2.80	2.54	3.77	4.17	5.08	# 46.59	64.13	12.6	
818	CHARITY CHURCH R	C-3 TVA	810	2	4.67	1.28	1.28	4.19	7.12	6.71	4.19	4.19	5.78	5.18	1.41	4.02	4.12	6.32	2.84	4.02	5.16	3.12	2.73	2.80	2.71	# 2.71	4.71	# 44.97	# 48.48	55.98	14.0	
582	LYNCHBURG	C-3 TVA	780	27	5.64	6.39	1.33	5.97	6.79	6.07	4.92	4.50	7.40	4.24	0.54	3.80	2.83	4.65	1.26	3.26	2.66	4.47	4.37	2.38	2.98	4.04	4.46	5.61	# 48.48	55.98	14.0	
60	BEVIDERE R	C-3 TVA	970	33	4.87	5.48	1.24	5.14	5.64	5.65	5.61	4.43	5.62	5.54	1.56	4.22	4.95	5.50	1.14	3.50	2.93	3.48	1.97	2.38	3.52	4.09	3.21	4.61	# 42.03	51.47	13.0	
827	TIPS FORD DAM R	C-3 TVA	765	1	5.15	1.09	1.09	4.66	6.04	6.04	4.66	4.66	6.04	6.04	4.66	4.66	6.04	6.04	2.34	3.50	2.93	3.48	1.97	2.38	3.52	4.09	3.21	4.61	# 42.03	51.47	13.0	
823	TULLAHOVA X	C-3 TVA	1040	2	5.80	6.02	1.27	5.87	8.14	5.73	4.71	4.71	7.01	3.76	2.50	3.63	1.45	4.71	2.34	3.50	3.17	3.36	1.80	1.74	# 1.01	4.42	4.42	4.42	# 40.12	53.72	24.7	
799	DECHERO SINK, TENN R	C-3 TVA	1045	3	4.69	1.25	1.25	4.69	6.04	6.04	4.69	4.69	6.04	6.04	4.69	4.69	6.04	6.04	2.34	3.50	2.93	3.48	1.97	2.38	3.52	4.09	3.21	4.61	# 42.03	51.47	13.0	
439	WAINWESVILLE	C-3 TVA	960	29	3.28	5.78	0.70	5.43	4.73	5.35	3.62	4.39	5.15	4.05	1.12	4.32	3.69	5.33	1.48	3.46	2.96	3.65	1.97	2.56	3.22	4.12	5.23	4.97	# 34.23	53.49	13.5	
859	ESTILL SPRINGS R	C-3 TVA	916	1	4.60	0.60	0.60	4.60	5.70	5.70	4.60	4.60	5.70	5.70	4.60	4.60	5.70	5.70	1.44	3.46	2.96	3.65	2.10	2.90	2.90	4.12	5.23	4.97	# 34.23	53.49	13.5	
854	ESTILL SPRINGS, RADIO	C-3 TVA	916	1	4.60	0.60	0.60	4.60	5.70	5.70	4.60	4.60	5.70	5.70	4.60	4.60	5.70	5.70	1.44	3.46	2.96	3.65	2.10	2.90	2.90	4.12	5.23	4.97	# 34.23	53.49	13.5	
701	HILLSBORO	0-3 TVA	1040	19	5.01	4.99	1.30	5.16	6.84	5.72	5.18	4.67	5.01	4.51	0.94	3.73	2.71	5.00	2.96	3.22	3.14	3.98	4.24	2.47	# 3.34	4.36	3.64	5.06	# 44.27	56.61	12.2	
776	ELMHED R	0-3 TVA	1042	8	4.94	4.17	1.00	4.31	5.68	6.81	4.46	4.72	5.03	4.52	3.20	4.47	2.68	5.08	1.88	3.67	2.39	2.85	2.11	2.64	3.05	3.87	3.72	4.55	# 40.20	61.65	12.2	
472	MONTAGLE X	0-3 US48	1920	29	6.33	6.70	2.00	6.40	5.90	6.99	4.94	5.35	6.97	4.16	1.70	4.33	5.29	5.40	1.23	4.16	3.66	3.59	2.41	2.88	3.53	4.67	4.43	6.23	# 48.39	60.86	23.5	
Interpolated or partly interpolated																																
(#)	Recorder at present (DP) Digital punch																															

(#) Interpreted or partly interpolated (DP) Digital punch

(a) Recorder at present

TABLE 4
PRECIPITATION
IN
WATERSHED SUBDIVISION NO. 4
HIWASSEE RIVER

TABLE 5
PRECIPITATION
IN
WATERSHED SUBDIVISION NO. 5
LITTLE TENNESSEE RIVER

TABLE 6
PRECIPITATION
IN
WATERSHED SUBDIVISION NO. 6
FRENCH BROAD RIVER

Sta. No.	Station Name and Location	Index Owner	Elev.	Yrs. of Record	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER		YEAR		Depth of Snow (inches)		
					Total	Nor.'l	Total	Nor.'l	Total	Nor.'l	Total	Nor.'l	Total	Nor.'l	Total	Nor.'l	Total	Nor.'l	Total	Nor.'l	Total	Nor.'l	Total	Nor.'l	Total	Nor.'l	Total	Nor.'l	Total				
FRENCH BRIDGE RIVER-SUBDIVISION NO. 6 CONTINUED																																	
270	SWANNANOGA R. ES	G-3 US48	2260	38	3-02	3-58	0-45	3-47	5-81	4-21	3-25	3-48	2-87	2-90	4-86	3-56	4-58	4-38	4-37	4-88	2-56	3-37	6-11	3-15	3-15	2-74	2-64	3-12	2-64	43-67	42-84	18-0	
271	NORTH FORK NO. 2 ES	G-3 US48	2220	26	3-57	4-07	0-53	4-06	7-25	5-18	3-95	3-93	2-32	3-63	4-52	4-47	6-41	5-49	6-41	5-49	2-18	4-79	6-88	3-11	2-98	3-34	2-86	3-39	4-62	51-11	14-3		
271A	NORTH FORK R. ES	G-3 TVA	2765	43	5-24	4-68	0-78	4-01	7-27	5-78	4-08	4-71	2-44	3-77	5-27	4-57	5-78	6-10	5-78	6-10	1-77	4-59	10-82	3-04	2-98	3-34	2-86	3-39	4-21	3-70	46-22	51-11	16-3
272	BLACK MOUNTAIN X ES	G-3 US48	2600	19	3-55	3-51	0-53	3-97	5-20	5-12	3-34	4-17	3-93	3-51	6-71	4-54	4-55	4-34	2-55	4-96	1-94	4-24	9-18	3-40	2-81	2-96	3-32	3-50	# 47-61	52-55	19-3		
273	ENKA ES	G-3 US48	2095	39	3-55	3-15	0-39	3-17	5-20	5-12	3-54	4-77	3-93	3-51	6-71	4-54	4-55	4-38	2-55	4-96	1-94	4-24	9-18	3-40	2-81	2-96	3-32	3-50	# 47-61	52-55	19-3		
266	ROCKFACE MOUNTAIN ES	G-3 TVA	3100	34	3-95	3-50	0-45	3-55	5-21	4-29	2-85	3-34	3-45	2-91	4-61	3-77	5-27	4-65	5-94	4-76	2-13	3-08	4-44	2-55	2-72	2-55	2-23	2-91	43-27	41-87	28-0		
275	BENT CREEK X ES	G-3 USFS	2110	35	3-32	3-94	0-59	3-77	5-58	4-68	2-34	3-95	2-88	2-90	3-87	4-01	3-47	5-21	2-17	4-65	3-75	3-15	5-60	3-17	2-31	3-07	3-72	3-58	38-20	46-08	22-0		
276	ASHVILLE AIRPORT R XX ES	G-3 US48	2140	4	2-93	0-62	0-64	3-66	6-65	4-73	2-37	3-86	2-71	2-92	5-06	4-03	7-18	5-21	3-31	4-65	2-44	3-58	5-30	3-13	2-98	2-96	2-31	3-50	41-60	47-24	17-0		
276B	A C H AIRPORT ES	G-3 TVA	2090	34	3-02	3-92	0-84	3-66	5-73	4-70	2-65	3-86	2-71	2-92	5-06	4-03	7-18	5-21	3-31	4-65	2-44	3-58	5-30	3-13	2-98	2-96	2-31	3-50	41-60	47-24	17-0		
277	GAREN CREEK ES	G-3 TVA	2620	33	3-93	4-68	0-51	4-50	5-60	5-56	3-23	4-74	2-86	3-81	6-34	5-11	4-74	5-82	4-78	6-24	2-11	5-18	11-91	4-39	2-93	3-87	# 3-10	4-38	# 54-34	58-38	13-0		
278	BLUE RIDGE POST OFFICE R	G-3 TVA	2280	34	3-63	4-51	0-60	4-52	4-75	5-30	2-33	4-26	5-03	3-65	6-30	4-49	8-34	5-94	1-77	5-68	1-92	4-67	8-07	3-79	2-82	3-55	3-69	4-28	49-25	54-72	22-0		
279	HENDERSONVILLE X ES	G-3 US48	2080	72	3-57	4-76	0-84	4-58	5-44	5-48	2-63	4-34	5-45	4-15	6-76	4-82	3-00	6-16	1-76	5-52	3-21	4-04	6-09	3-75	3-76	3-60	3-61	4-72	46-72	56-12	22-0		
279A	HENDERSONVILLE ES	G-3 TVA	2210	21	3-74	4-76	0-68	4-58	5-93	5-48	2-83	4-54	4-94	4-15	6-93	4-82	2-93	6-16	1-50	5-52	3-69	4-04	7-59	3-75	3-70	3-60	4-03	4-72	48-49	56-12	18-8		
280	PINK BEDS R ES	G-3 TVA	5283	33	4-01	6-19	0-71	6-19	7-74	7-31	3-38	6-04	6-22	4-76	6-80	5-87	7-77	6-63	0-28	7-05	4-20	5-23	9-44	5-13	5-38	5-19	5-15	6-05	60-08	71-22	29-8		
281	PINK BEDS R ES	G-3 TVA	5283	33	4-01	6-19	0-71	6-19	7-74	7-31	3-38	6-04	6-22	4-76	6-80	5-87	7-77	6-63	0-28	7-05	4-20	5-23	9-44	5-13	5-38	5-19	5-15	6-05	60-08	71-22	29-8		
282	ELITCHER-NEAR R ES	G-3 NC	2070	9	2-70	3-48	0-63	4-49	8-11	5-74	3-10	3-33	4-39	3-77	5-70	4-82	7-40	5-73	3-21	7-40	3-73	3-91	5-96	4-42	3-42	3-10	3-91	3-49	52-26	63-42	11-0		
283A	BUCK FOREST ES	G-3 TVA	2315	10	5-54	5-47	0-99	6-00	9-42	7-25	4-84	5-99	7-57	5-86	10-37	7-53	7-40	7-12	3-09	8-10	5-02	5-37	6-25	6-05	5-36	4-40	5-68	5-68	74-40	80-04	27-4		
283	CEADAR MOUNTAIN R ES	G-3 TVA	2750	33	5-56	6-84	1-12	6-96	9-21	7-80	4-55	5-59	6-54	5-21	8-97	6-43	6-47	7-55	3-24	8-13	5-75	3-76	10-00	5-95	5-99	5-93	5-21	9-88	72-10	79-42	27-4		
284	CAESARS HEAD X ES	G-3 US48	3115	44	7-66	6-74	1-26	6-15	8-64	7-22	4-20	5-83	7-84	5-40	7-87	5-42	10-60	7-55	3-88	7-74	5-11	5-53	11-54	5-95	5-99	5-93	5-21	9-88	72-10	79-42	27-4		
285	BREVARO R ES	G-3 US48	2120	65	5-22	5-75	0-89	5-55	8-03	6-18	3-75	5-93	5-96	4-83	7-26	4-94	5-81	6-51	4-25	6-05	4-59	4-46	6-57	4-31	7-14	4-25	5-52	5-63	64-99	63-49	15-8		
286	ROSHAN NO. 2 ES	G-3 TVA	2230	34	5-17	7-03	1-41	7-06	9-71	7-60	5-56	6-59	6-17	5-41	7-30	6-22	5-88	8-38	4-35	8-09	6-37	5-84	7-61	5-11	5-17	5-72	6-34	7-14	71-04	80-39	17-0		
286B	ROSHAN R. ES	G-3 TVA	2230	4	4-71	6-36	1-20	6-40	8-74	8-74	5-09	6-49	5-86	5-86	7-75	6-75	5-33	7-96	3-96	7-14	4-92	6-43	9-64	5-32	# 5-06	6-43	6-03	# 66-17	# 73-55	80-27	17-0		
286B	ROSHAN R. ES	G-3 TVA	2230	4	4-71	6-36	1-22	6-48	8-70	8-70	5-09	6-49	5-86	5-86	7-75	6-75	5-33	7-96	3-96	7-14	4-92	6-43	9-64	5-32	# 5-06	6-43	6-03	# 66-17	# 73-55	80-27	17-0		
723	LAKE TORAWAY ES	G-3 US48	3080	17	5-04	6-48	1-11	8-21	9-34	8-40	5-78	7-64	5-72	5-79	4-95	6-94	3-83	6-64	5-26	7-92	9-18	6-60	8-12	6-55	6-55	6-20	6-84	6-87	70-82	83-00	19-0		
(#)	Interpolated or partly interpolated	(#)	Recorder at present	(#)	Original punch																												

TABLE 7
PRECIPITATION
IN
WATERSHED SUBDIVISION NO. 7
HOLSTON RIVER

ANNUAL 1968 PRECIPITATION - In Inches

DIVISION OF WATER CONTROL PLANNING

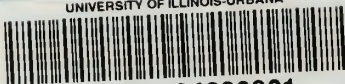
Sta. No.	Station Name and Location	Index	Owner	Elev.	Yrs. of Record	JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER		YEAR Total	Nor'l	Depth of Snow (Inches)	
						Total	Nor'l	Total	Nor'l	Total	Nor'l	Total	Nor'l	Total	Nor'l	Total	Nor'l	Total	Nor'l	Total	Nor'l	Total	Nor'l	Total	Nor'l	Total	Nor'l	Total	Nor'l				Total
HOLSTON RIVER-SUBDIVISION NO. 7																																	
395	STANBERRY PLAINS ES	F-2	TVA	870	30	4.19	4.55	0.90	5.18	3.91	4.70	5.59	3.44	3.04	3.56	5.84	3.48	5.37	4.38	1.46	2.77	2.27	2.96	1.71	2.19	1.88	3.67	2.98	4.09	39.14	44.97	7.3	
289	JOPPA ES	F-2	TVA	935	34	4.44	5.01	1.31	4.99	3.43	5.23	5.49	3.91	3.59	3.52	4.03	3.32	3.34	4.13	1.76	3.58	1.79	2.94	2.38	2.44	2.48	3.62	3.55	4.03	36.91	46.15	9.7	
489	CHEWEE GAP ES	F-2	TVA	1000	28	4.15	4.53	0.60	4.92	4.13	4.47	5.12	3.30	3.46	3.60	4.23	3.50	4.12	4.32	1.87	3.71	1.87	2.67	1.87	2.27	1.89	3.58	3.31	4.09	42.46	44.75	9.0	
270	JEFFERSON CITY EVAP STA X ES	F-2	TVA	1200	37	3.95	4.56	0.93	4.93	3.99	4.72	4.88	3.30	3.39	3.77	3.71	3.26	4.68	4.99	1.91	3.55	2.03	2.92	1.76	2.19	2.27	3.64	3.23	4.14	41.73	45.47	13.5	
290	MORRIS-CITY EVAP STA X ES	F-2	TVA	1325	34	3.58	4.92	0.86	4.83	4.57	5.17	5.45	3.80	3.24	3.66	4.92	3.78	7.73	5.02	5.44	3.66	2.21	3.94	1.36	2.38	2.23	3.08	3.11	3.76	37.46	47.94	13.5	
346	FLAT GAP ES	F-2	TVA	2000	33	3.56	4.92	0.86	4.83	4.57	5.17	5.45	3.80	3.24	3.66	4.92	3.78	7.73	5.02	5.44	3.66	2.21	3.94	1.36	2.38	2.23	3.08	3.11	3.76	37.46	47.94	13.5	
291	ROGERSVILLE X ES	G-2	USAR	1375	84	3.98	4.40	0.90	4.31	4.00	4.60	4.88	3.62	3.04	3.45	5.23	3.18	5.43	4.50	3.62	3.40	2.77	2.61	1.93	2.47	2.77	3.19	2.77	3.81	37.94	47.61	11.1	
727	JOHN SEVIER STEAM PLANT R	G-2	TVA	1120	16	4.03	3.88	0.55	4.37	3.53	4.80	4.94	3.78	3.52	3.54	3.31	3.49	5.77	4.39	1.93	3.88	2.73	2.55	2.77	2.77	2.77	3.19	2.77	3.81	37.94	47.61	11.1	
347	WALL GAP ES	F-2	TVA	1880	34	3.71	4.70	0.92	4.50	3.53	5.01	5.45	3.87	3.08	3.42	3.99	3.50	6.46	5.29	3.52	3.66	3.52	2.67	3.24	2.72	2.72	3.19	2.72	3.81	42.87	46.14	21.2	
510	STANLEY-MORRIS R ES	G-2	TVA	1330	28	3.95	4.06	0.45	4.16	3.46	4.60	3.93	3.26	3.91	3.48	3.58	4.28	3.57	6.25	4.95	2.68	3.39	3.97	2.31	2.49	1.96	2.28	3.09	2.68	3.63	38.13	42.06	
315	MORRIS R ES	G-2	TVA	1360	44	3.95	4.32	0.34	4.13	3.98	4.41	4.68	3.52	5.04	3.62	1.98	3.86	2.47	5.00	2.57	4.21	4.13	2.19	3.04	2.48	2.72	3.01	3.50	3.40	38.13	42.06		
316	MORRIS R ES	G-2	TVA	1390	64	3.95	4.32	0.34	4.13	3.98	4.41	4.68	3.52	5.04	3.62	1.98	3.86	2.47	5.00	2.57	4.21	4.13	2.19	3.04	2.48	2.72	3.01	3.50	3.40	38.13	42.06		
317	MORRIS R ES	G-2	TVA	1420	84	3.95	4.32	0.34	4.13	3.98	4.41	4.68	3.52	5.04	3.62	1.98	3.86	2.47	5.00	2.57	4.21	4.13	2.19	3.04	2.48	2.72	3.01	3.50	3.40	38.13	42.06		
318	MORRIS R ES	G-2	TVA	1450	104	3.95	4.32	0.34	4.13	3.98	4.41	4.68	3.52	5.04	3.62	1.98	3.86	2.47	5.00	2.57	4.21	4.13	2.19	3.04	2.48	2.72	3.01	3.50	3.40	38.13	42.06		
319	MORRIS R ES	G-2	TVA	1480	124	3.95	4.32	0.34	4.13	3.98	4.41	4.68	3.52	5.04	3.62	1.98	3.86	2.47	5.00	2.57	4.21	4.13	2.19	3.04	2.48	2.72	3.01	3.50	3.40	38.13	42.06		
320	MORRIS R ES	G-2	TVA	1510	144	3.95	4.32	0.34	4.13	3.98	4.41	4.68	3.52	5.04	3.62	1.98	3.86	2.47	5.00	2.57	4.21	4.13	2.19	3.04	2.48	2.72	3.01	3.50	3.40	38.13	42.06		
321	MORRIS R ES	G-2	TVA	1540	164	3.95	4.32	0.34	4.13	3.98	4.41	4.68	3.52	5.04	3.62	1.98	3.86	2.47	5.00	2.57	4.21	4.13	2.19	3.04	2.48	2.72	3.01	3.50	3.40	38.13	42.06		
322	MORRIS R ES	G-2	TVA	1570	184	3.95	4.32	0.34	4.13	3.98	4.41	4.68	3.52	5.04	3.62	1.98	3.86	2.47	5.00	2.57	4.21	4.13	2.19	3.04	2.48	2.72	3.01	3.50	3.40	38.13	42.06		
323	MORRIS R ES	G-2	TVA	1600	204	3.95	4.32	0.34	4.13	3.98	4.41	4.68	3.52	5.04	3.62	1.98	3.86	2.47	5.00	2.57	4.21	4.13	2.19	3.04	2.48	2.72	3.01	3.50	3.40	38.13	42.06		
324	MORRIS R ES	G-2	TVA	1630	224	3.95	4.32	0.34	4.13	3.98	4.41	4.68	3.52	5.04	3.62	1.98	3.86	2.47	5.00	2.57	4.21	4.13	2.19	3.04	2.48	2.72	3.01	3.50	3.40	38.13	42.06		
325	MORRIS R ES	G-2	TVA	1660	244	3.95	4.32	0.34	4.13	3.98	4.41	4.68	3.52	5.04	3.62	1.98	3.86	2.47	5.00	2.57	4.21	4.13	2.19	3.04	2.48	2.72	3.01	3.50	3.40	38.13	42.06		
326	MORRIS R ES	G-2	TVA	1690	264	3.95	4.32	0.34	4.13	3.98	4.41	4.68	3.52	5.04	3.62	1.98	3.86	2.47	5.00	2.57	4.21	4.13	2.19	3.04	2.48	2.72	3.01	3.50	3.40	38.13	42.06		
327	MORRIS R ES	G-2	TVA	1720	284	3.95	4.32	0.34	4.13	3.98	4.41	4.68	3.52	5.04	3.62	1.98	3.86	2.47	5.00	2.57	4.21	4.13	2.19	3.04	2.48	2.72	3.01	3.50	3.40	38.13	42.06		
328	MORRIS R ES	G-2	TVA	1750	304	3.95	4.32	0.34	4.13	3.98	4.41	4.68	3.52	5.04	3.62	1.98	3.86	2.47	5.00	2.57	4.21	4.13	2.19	3.04	2.48	2.72	3.01	3.50	3.40	38.13	42.06		
329	MORRIS R ES	G-2	TVA	1780	324	3.95	4.32	0.34	4.13	3.98	4.41	4.68	3.52	5.04	3.62	1.98	3.86	2.47	5.00	2.57	4.21	4.13	2.19	3.04	2.48	2.72	3.01	3.50	3.40	38.13	42.06		
330	MORRIS R ES	G-2	TVA	1810	344	3.95	4.32	0.34	4.13	3.98	4.41	4.68	3.52	5.04	3.62	1.98	3.86	2.47	5.00	2.57	4.21	4.13	2.19	3.04	2.48	2.72	3.01	3.50	3.40	38.13	42.06		
331	MORRIS R ES	G-2	TVA	1840	364	3.95	4.32	0.34	4.13	3.98	4.41	4.68	3.52	5.04	3.62	1.98	3.86	2.47	5.00	2.57	4.21	4.13	2.19	3.04	2.48	2.72	3.01	3.50	3.40	38.13	42.06		
332	MORRIS R ES	G-2	TVA	1870	384	3.95	4.32	0.34	4.13	3.98	4.41	4.68	3.52	5.04	3.62	1.98	3.86	2.47	5.00	2.57	4.21	4.13	2.19	3.04	2.48	2.72	3.01	3.50	3.40	38.13	42.06		
333	MORRIS R ES	G-2	TVA	1900	404	3.95	4.32	0.34	4.13	3.98	4.41	4.68	3.52	5.04	3.62	1.98	3.86	2.47	5.00	2.57	4.21	4.13	2.19	3.04	2.48	2.72	3.01	3.50	3.40	38.13	42.06		
334	MORRIS R ES	G-2	TVA	1930	424	3.95	4.32	0.34	4.13	3.98	4.41	4.68	3.52	5.04	3.62	1.98	3.86	2.47	5.00	2.57	4.21	4.13	2.19	3.04	2.48	2.72	3.01	3.50	3.40	38.13	42.06		
335	MORRIS R ES	G-2	TVA	1960	444	3.95	4.32	0.34	4.13	3.98	4.41	4.68	3.52	5.04	3.62	1.98	3.86	2.47	5.00	2.57	4.21	4.13	2.19	3.04	2.48	2.72	3.01	3.50	3.40	38.13	42.06		
336	MORRIS R ES	G-2	TVA	1990	464	3.95	4.32	0.34	4.13	3.98	4.41	4.68	3.52	5.04	3.62	1.98	3.86	2.47	5.00	2.57	4.21	4.13	2.19	3.04	2.48	2.72	3.01	3.50	3.40	38.13	42.06		
337	MORRIS R ES	G-2	TVA	2020	484	3.95	4.32	0.34	4.13	3.98	4.41	4.68	3.52	5.04	3.62	1.98	3.86	2.47	5.00	2.57	4.21	4.13	2.19	3.04	2.48	2.72	3.01	3.50	3.40	38.13	42.06		
338	MORRIS R ES	G-2	TVA	2050	504	3.95	4.32	0.34	4.13	3.98	4.41	4.68	3.52	5.04	3.62	1.98	3.86	2.47	5.00	2.57	4.21	4.13	2.19	3.04	2.48	2.72	3.01	3.50	3.40	38.13	42.06		
339	MORRIS R ES	G-2	TVA	2080	524	3.95	4.32	0.34	4.13	3.98	4.41	4.68	3.52	5.04	3.62	1.98	3.86	2.47	5.00	2.57	4.21	4.13	2.19	3.04	2.48	2.72	3.01	3.50	3.40	38.13	42.06		
340	MORRIS R ES	G-2	TVA	2110																													

TABLE 8
PRECIPITATION
IN
WATERSHED SUBDIVISION NO. 8
CLINCH RIVER

TABLE 9
PRECIPITATION
IN
WATERSHED SUBDIVISION NO. 9
CANEY FORK ABOVE GREAT FALLS DAM

TABLE 10
PRECIPITATION
UNCLASSIFIED STATIONS

UNIVERSITY OF ILLINOIS-URBANA



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